The Relations between Identity, Cultural Values and Mental Health Outcomes in Asian Adults Living in Canada

by

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B.A., McGill University, 2009

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

in the Department of Psychology

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University of Victoria

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Supervisory Committee

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Abstract

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The literature on identity and acculturation has discussed many aspects of the ethnic minorities’ experience that have important implications for the mental health status of these individuals. The goal of the present study was to integrate these findings to create an encompassing picture of how these processes may interact with one another in first-generation Asian immigrants and Asian international students in Canada. Results indicated that one’s identification to the mainstream and heritage cultures were dependent on one’s stage in ethnic identity development. Second, it was found that ethnic identity exploration and ethnic identity achievement were differentially associated with reported levels of race-related stress. Third, bicultural conflict and vertical collectivism were negatively associated with psychological outcomes, whereas ethnic identity achievement was positively associated with well-being. Finally, strategies of self-continuity were not associated with the individualism-collectivism measures assessed in the study.
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Acknowledgments

I would like to take this opportunity to sincerely thank the many individuals who have guided and supported me over the past two years. I would like to thank my graduate supervisor, Dr. Christopher Lalonde for his kindness, generosity and guidance throughout the development of this project. I would also like to thank Dr. Marsha Runtz for her suggestions and comments.

This project would not have been possible without the participants who generously donated their time for the study and the volunteers who aided in the transcriptions of the interviews. I would also like to acknowledge the Canadian Institute of Health Research and the University of Victoria for their generous financial support.
Dedication

To my parents and my brother who have inspired me to contribute to the immigrant community and for their courage, sacrifice and support.
Introduction

Research on personal and ethnic identity has expanded significantly since Erikson’s (1968) and Marcia’s (1966) contributions to the study of identity formation. In particular, with the increasing number of immigrants throughout the world, the influences of culture and the process of acculturation on identity development have been highlighted in the literature.

The present study aims to integrate the research on identity, cultural values and their impact on psychological well-being among Asian adults living in Canada. More specifically, decades of research suggest a general link between a stable, established identity and positive outcomes. However, the current literature indicates a complex and dynamic relationship between one’s identity status and two salient challenges that ethnic minorities face: the integration of heritage and mainstream cultural values and the experiences of racial stereotyping and discrimination. It is reasoned that these two challenges will have a differential relationship with mental health depending on one’s stage in identity negotiation. Additionally, the cultural values that are pertinent to individuals of Asian heritage will be explored, to determine whether these values make certain aspects of identity more salient. The three components of identity that will be of focus in the study are: ethnic identity, bicultural identity and self-continuity. Hence, it is the goal of the study to find a conceptual framework that connects the relationship between the experiences that are associated with the acculturation process, identity status and positive adjustment outcomes.
Ethnic Identity

The establishment of identity is the central developmental task of adolescence and young adulthood (Erikson, 1968). For individuals of colour, ethnic identity in particular has been linked to numerous positive outcomes including academic achievement, psychological well-being, self-esteem, and lower levels of depressive symptomatology (Brown, 2008; Roberts et al., 1999).

Ethnic identity is commonly defined utilizing Tajfel’s (1981) concept of social identity, referring to the part of an individual’s self-concept that derives from his or her knowledge of membership in a social group, together with the value and emotional significance attached to that membership. Using this definition as the framework, Phinney (1990) constructed the Multigroup Ethnic Identity Measure (MEIM), which conceptualizes ethnic identity by encompassing the commonalities across diverse ethnic groups. For instance, self-identification, referring to the ethnic label that one uses for oneself was seen as a necessary precondition for ethnic identity. Phinney (1990) reported that ethnic behaviours and practices, affirmation and belonging, and ethnic identity achievement were components of ethnic identity.

Ethnic identity formation has been suggested to move from an unexamined attitude in childhood, to a phase of moratorium or period of exploration in adolescence, followed by a secure achieved ethnic identity status nearing the end of adolescence. It is during the period of exploration or moratorium that individuals begin to express interest and become actively involved in learning more about their culture (Phinney, 1989). The optimal outcome of the identity development process is to reach ethnic identity achievement, characterized as having a
secure sense of self, a clear understanding of the role of ethnicity in one’s life, along with feelings of affirmation and belonging to one’s ethnic group (Phinney & Ong, 2007).

Psychological well-being has been studied extensively in the literature as a positive by-product of ethnic identity achievement. One of the earliest statements in regards to the role of social identity on well-being was by Lewin (1948), who argued that a sense of group identification is needed to maintain a sense of well-being. This idea was further developed by Tajfel and Turner (1979), in the social identity theory, which asserted that being a member of a group is related to a sense of belonging that contributes to a positive self-concept. Similarly, ethnic identity was found to have positive effects on psychological well-being in Asian Americans in numerous studies (Kiang, Yip, Gonzales-Backen, Witkow, & Fulgini, 2006; Chae & Foley, 2010; Iwamoto & Liu, 2010). In particular, feelings of affirmation and belonging to one’s ethnic group (a component of ethnic identity achievement), has been reported to have a strong relationship with psychological well-being (Kang, Shaver, Sue, Mi & Jing, 2003; Yoo & Lee, 2005; Iwamoto & Liu, 2010; Ghavami, Fingerhut, Peplau, Grant, & Wittig, 2011) and thus, may be a central aspect of positive outcomes in ethnic minority adolescents and adults.
Acculturation and Bicultural Identity

A similar but separate construct related to ethnic identity is Berry’s model of acculturation, which centers on how individuals work to retain identification with their culture of origin while being motivated to take part in the mainstream culture (Berry, 1990). Berry has identified four acculturation strategies: assimilation, separation, marginalization and integration, which have been studied extensively in the literature. Assimilation refers to involvement in the dominant culture only, whereas separation when individuals place value on holding on to their original culture and avoiding interactions with the dominant culture. Those who use the marginalization strategy lack identification with either culture. The acculturation strategy of integration has been found to be the most adaptive in the literature and refers to the ability to maintain one’s cultural identity from the country of origin, yet seeking out interactions with and maintaining an interest in the mainstream culture (Berry, 2006).

The acculturation strategy of integration is often referred to as biculturalism or bicultural identity, which is generally understood as the exposure to two different cultures, which have been internalized by the individual (Benet-Martinez, Leu, Lee & Morris, 2002), and one’s behaviours entail the integration of two cultural norms (Rotheram-Borus, 1993). Various methods of measuring biculturalism are discussed in the literature, from prior measures reflecting a one-dimensional view of acculturation to the bidimensional approach, where participants are asked about their involvement in the two cultures on separate scales. More recently, research on acculturation has shifted from an unidimensional conceptualization of acculturation to a bidimensional one (Snauwaert, Soenens, Vanbeselaere & Boen,
and presently, it has been suggested that biculturalism can only be measured through a bidimensional approach (Schwartz, Unger, Zamboanga & Szapocznik, 2010).

Ethnic identity has been suggested to be a salient part of the acculturation process. However, few studies tie together the relationship between acculturation and ethnic identity in ethnic minorities. Acculturation has been suggested to be a broader construct than ethnic identity which encompasses a wide range of behaviours, attitudes and values, whereas ethnic identity is a component of acculturation that highlights the subjective sense of belonging to a culture (Liebkind, 2006; Phinney, 1990; Phinney, Horenczyk, Liebkind & Vedder, 2001). Some researchers have emphasized a linear process of assimilation with a unidirectional change toward the mainstream society and disappearance of one’s ethnic or cultural identity (Laroche, Kim, Hui, & Tomiuk, 1998; Nguyen, Messé, & Stollak, 1999); others have argued for cultural plurality in which identifications with both cultures can coexist (Berry, 1997; Sayegh & Lasry, 1993). The current research on acculturation and ethnic identity suggests that a strong ethnic identity is not necessarily incompatible with identification with the mainstream culture (Liebkind, 2006). However, others have reported a negative relationship between ethnic identity and those who were more assimilated to the mainstream culture (Chae & Foley, 2010). Thus, the present study aims to clarify the relationship between ethnic identity and acculturation using a bidimensional conceptualization of acculturation. Congruent with the literature on cultural plurality, it is expected that identification to the mainstream culture will not have an impact on ethnic identity whereas identification to one’s heritage culture will significantly contribute to ethnic identity.
The biculturalism literature has suggested that there are bicultural categories that are qualitatively distinct from one another. For instance, Phinney and Devich-Navarro (1997) identified two bicultural categories: blended (individuals who did not feel conflicted and felt positively about both cultures) and alternating (individuals who identified with both cultures but saw them as conflicting). Thus, in general, researchers have attempted to identify bicultural individuals that may keep their heritage and the receiving culture separate or synthesized (Schwartz, et al., 2010). However, more recently, it has been noted that the past categorization of biculturalism did not distinguish between various aspects of the bicultural experience. For instance, identity-related aspects of the bicultural experience (e.g., seeing oneself as Asian American) is a different component from behaviour aspects of being a bicultural (e.g., ability to move between the two cultures using situational cues; Huynh, Nguyen, &Benet-Martinez, 2011).

To address this issue, Benet-Martinez and colleagues (2002) proposed a theoretical construct of Bicultural Identity Integration (BII) with two independent dimensions: cultural conflict and cultural distance. Cultural conflict pertains to the degree of clash between the two cultures and feeling that they are incompatible (e.g., “I feel caught between the Chinese and American cultures”). On the other hand, cultural distance refers to the perception that the two cultural identities are dissociated rather than hyphenated or united (e.g., “I see myself as a Chinese in the United States” vs. “I am a Chinese-American”). These two components were found to be independent components that were differentially associated with various contextual and personality variables. For instance, cultural conflict was related to the affective, rather than the cognitive aspect of the bicultural’s experience. Perceived discrimination, difficulties in language and intercultural relations (e.g., disagreements with others for being “too American” or
“too ethnic”) were predictive of cultural conflict. In contrast, cultural distance was related to learned or performance based aspects of acculturation such as language fluency and cultural competence (i.e., being able to display comparable levels of involvement in both cultures) especially to the mainstream culture (Benet-Martinez & Haritatos, 2005).

Recent research has suggested that a synthesized orientation of biculturalism rather than viewing the two cultures as mutually exclusive is more adaptive, with higher levels of self-esteem and lower levels psychological distress being found in these individuals (Chen, Benet-Martinez, & Bond, 2008). Further support comes from research in acculturation in which the acculturation strategy of integration (e.g., being able to identify with both mainstream and heritage cultures) has been positively linked to psychological adjustment (Berry, 1997; Phinney et al., 2001). However, the independent impact of cultural conflict and distance as conceptualized by Benet-Martinez and colleagues (2002), on psychological adjustment remains to be investigated. It is possible that one of the two constructs cause more psychological distress than the other. Thus, the current study will explore the relationship between cultural conflict and distance on mental-health outcomes in Asian adults in Canada.
Perceived Discrimination and Ethnic Identity

Bicultural individuals, in particular those who are considered to be visible minorities are more likely to face discrimination and negative messages regarding their ethnic group. Research in Canada and in the United States has consistently indicated that personal and group discrimination is prevalent against Asian American and Canadians and does impact well-being and daily functioning (Dion & Kawakami, 1996; Kessler et al., 1999; Ying, Lee, & Tsai, 2000). These experiences of perceived racism and stereotyping make ethnic identity a more salient aspect of the self in minority individuals. The formation of ethnic identity based on exploration, where an individual seeks to learn about one’s ethnic group and makes a commitment to the group has been found to lead to rejection of negative views based on stereotypes (Phinney, 1989). Additionally, there is evidence that experiences of prejudice and discrimination may play an important role in ethnic identity development in initiating and fostering the process of exploration and thus, stimulating reflection regarding one’s group membership.

Pahl and Way (2006) reported that perceived discrimination played an important role in the continuation of ethnic identity exploration in Black and Latino adolescents across time. Post-hoc analysis revealed a dynamic and reciprocal relationship between exploration and perceived discrimination, in that, adolescents that engaged in the reflection on one’s ethnic group membership were also more likely to report discriminatory experiences. Similarly, the process of exploration has been reported to increase vulnerability to discrimination in Asian American, Black and Latino adolescents (Greene, Way, & Pahl, 2006). Thus, these findings
suggest that depending on one’s stage of ethnic identity, one may be more or less likely to report and be affected by experiences of discrimination.

Little is understood regarding the protective role of ethnic identity against race-related stress. Some studies have indicated that ethnic identity may increase the negative impact of racial discrimination among Asian Americans (Yoo & Lee, 2008), whereas others (Greene et al., 2006; Lee, 2005) found vulnerability to discrimination reduced when individuals reported ethnic affirmation, a component of ethnic identity achievement. This has important implications since the experiences of discrimination impact health outcomes in ethnic minorities. For instance, Karlsen and Nazroo (2002) reported that occupational class and experiences of discrimination were independently linked to self reported poor physical health in ethnic minorities living in Britain. However, it was also suggested that ethnic identity may not have a direct effect on health outcomes.

Thus, further clarification is necessary to identify the role of ethnic identity and its association with racism related experiences. For that reason, the current study will focus on the experiences of Asian young adults in a Canadian context, in which very limited research has been completed.
Self-Continuity

An additional aspect of identity that is influenced by cultural variability is self-continuity. The concept of personal persistence or self-continuity pertains to the ability to perceive oneself as continuous across time. Identifying the self as temporally persistent requires a solution to what has been called the paradox of sameness and change; that one must find a solution to explain how personal change exists concurrently with personal sameness (Chandler, Lalonde, Sokol & Hallet, 2003). Despite the idea of personal persistence being raised in the identity literature by key figures in psychology such as James (1961) and Erikson (1958), little attention has been given to how individuals navigate and arrive at the notion of a continuous self.

Chandler and colleagues (2003) have examined two different styles of reasoning of self-continuity. The “Essentialist” style “involves efforts to marginalize change by attaching special importance to one or more enduring attributes of the self that are imagined to somehow stand outside of or otherwise defeat time” (p. 12). Thus, Essentialists hold that there is a foundation or core of one’s self that remains constant, an inner essence of the self that does not change. On the contrary, a “Narrative” or “Relational” style of reasoning solves the problem of sameness within change through “throwing their lot in with time and change, and supposing that any residual demands for sameness can be satisfied by pointing to various relational forms that bind together the admittedly distinct time-slices of one’s life” (p.12). Rather than searching for an aspect of the self that remains the same, Narrativists construct relational or storied forms of the self that bind together the past and the present self. Thus, in contrast to viewing the self as immune to change, Narrativists are inclined to view it as more malleable. Chandler and colleagues (2003) also
distinguished five age-graded levels of reasoning within the two styles, which evolve from simplistic to more sophisticated ways of verbalizing how one comes to understand the self as continuous.

Not only is the ability to describe oneself as continuous throughout time an important aspect of identity development, it has also been demonstrated to be a unique marker of mental health status (Ball & Chandler, 1989). Psychiatrically hospitalized nonsuicidal patients exhibited a less mature way of understanding and explaining themselves as continuous through personal change than their non-hospitalized peers, whereas 80% of actively suicidal hospitalized adolescents failed to explain themselves or others as continuous in time (Ball & Chandler, 1989). Thus, failures in self-continuity have critical clinical implications as well, potentially shedding light on the sharp increase in suicide risk during adolescence.

Analysis of over 400 interviews revealed that most individuals indicated a preference for either the Essentialist or Narrativist response styles, and the strategies that were used by these youths remained stable across a two-year period. Aboriginal participants were more likely to use Narrativist strategies than non-Aboriginal, culturally mainstream participants, with 86% of Aboriginal participants employing Narrativist solutions of self continuity versus 14% Essentialist. On the contrary, mainstream participants were more likely to use Essentialist strategies (76% versus 24%).

The type of strategy used did not differ with age or gender and thus, cultural difference appeared to be the only variable that was associated with the drastic contrast in the preferred style of reasoning used. The authors argued that this difference may be due to the variations in philosophical understandings that are embedded in the cultural environment of these
youth. Specifically, it was suggested that Western thinkers such as Plato and Descartes may have coloured the Western culture with Essentialist thought, whereas the oral traditions of Aboriginal populations, may be more amenable to the Narrativistic strategy of thinking (Chandler et al., 2003).

Aboriginal peoples have been reported to encompass a sense of identity stemming from community and clan relationships in contrast to Euro-American individuals (Kirmayer, Brass, & Tait, 2000). Thus, Chandler and colleagues (2003) assessed participants’ independent and interdependent self-construals to examine whether cultural differences at the level of individualism and collectivism would explain the difference between Essentialists and Narrativists. Native youths reported high scores on both independent and interdependent scales. More importantly, Narrativists and Essentialists did not differ in their levels of independent and interdependent self-construals. Therefore, the possibility that individuals who chose Essentialist strategies were more likely to focus on their own individuality and Narrativists were more likely to see themselves as interdependent was not supported in the study. Thus, rather than measuring cultural differences through the dichotomous model of individualism and collectivism, more specific variables of cultural values may need to be assessed to explain the development of Essentialists and Narrativists strategies which is clearly grounded on some cultural variability.

Aboriginal and East Asian cultures both stem from a non-Western tradition, where group membership is a central aspect of identity and social contexts play a predominant role in causal reasoning (Oyserman, Coon, & Kemmelmeier, 2002). Additionally, research has shown that individuals of East Asian origin are more likely to explain behaviours with external factors such as social roles and cultural expectations, whereas Western individuals are more likely to use
internal, stable causes such as traits to explain such events (Markus & Kitayama, 1991). Such differences in causal attributions make it plausible that individuals from East Asia may be more inclined to use Narrativist strategies to solve the problem of personal persistence. The current study will further investigate the relationship between cultural values and the type of self-continuity strategy employed in Asian participants living in Canada.
**Individualism-Collectivism**

Comparing cultures through differences in individualism was popularized through the works of Geert Hofstede (1980). He focused on individualism in the workplace and how it influenced workers’ values of personal time and choice. Individualism generally refers to the extent that independence and personal uniqueness is valued in an individual or culture, whereas collectivism generally describes duty to an in-group and an emphasis on interdependence (Oyserman et al., 2002). In-groups can refer to family, ethnic, religious or other groups, suggesting the multidimensionality of the construct (Hui, 1988).

Past research has predominately reflected a one-dimensional model of Individualism and Collectivism (I-C), with I-C on opposite ends of a continuum. Western societies were generally reported to be more dominantly individualistic and Eastern societies to be more collectivist (e.g., Markus & Kitayama, 1991). A meta-analysis of two decades of research by Oyserman and colleagues (2002) revealed a comparison in I-C orientations between U.S./Canada to other regions of the world. Generally, North Americans were both higher in individualism and lower in collectivism than others; no differences were found from other English-speaking countries. However, depending on the content of the collectivism measure, North Americans were no less collectivistic than individuals in Japan and Korea – two allegedly ‘collectivist’ nations. Americans tended to report themselves as more collectivist when asked about a sense of belonging and seeking others’ advice. However, when asked about duty to an in-group, valuing group-harmony and hierarchy, Americans rated themselves as low in collectivistic orientation.
Thus, differentiating the various components of collectivism and utilizing appropriate measures to capture these components may be necessary to truly find a difference in I-C in individuals from Eastern and Western cultures. Oyserman and colleagues (2002) also noted that the majority of the I-C measures used had low reliability. Thus, assessing elements of I-C separately was highlighted as a way to achieve higher reliability, rather than calculating a single mean score for I-C.

For these reasons, a measure of Horizontal and Vertical Individualism and Collectivism may be a preferred scale to tease apart the intricate aspects of I-C (Singelis, Triandis, Bhawuk, & Gelfand, 1995). The Horizontal and Vertical Individualism and Collectivism Scale divides I-C to four dimensions: horizontal-collectivism (H-C), vertical-collectivism (V-C), horizontal-individualism (H-I) and vertical-individualism (V-I). H-C refers to a cultural pattern in which the individual sees oneself as an aspect of an in-group and the members of the in-group are seen as similar to each other in status. On the other hand, in V-C, the individual sees the self as an aspect of an in-group and interdependence is emphasized; however, the members of the in-group are seen as different from each other, with some having more status than others. Similarly, H-I focuses on the autonomous self and individuals are viewed as equal in status, whereas in V-I, autonomy and inequality is expected (Triandis, 1995). Put simply, vertical dimensions of individualism and collectivism relates to the acceptance of inequalities among people. By differentiating the vertical and horizontal dimensions of I-C, knowledge is gained as to how individuals in a society perceive and accept differential status within one’s environment (Singelis et al., 1995).
V-C was suggested to be an essential element of collectivism due to the strong and only positive correlation with the Asian American population and negative correlation with European Americans (Singelis et al., 1995). In addition, Hofstede’s (1980) study indicated that power distance, which refers to the extent in which the less powerful members of a group accept unequal distribution of power, was negatively related with individualism, providing additional evidence that V-C may be the core content of collectivism. V-C reflects individual’s willingness to sacrifice the self for the collective, and, in Singelis’ measure, six out of the eight items in the V-C dimension are related to family interdependence (e.g., “I would sacrifice an activity that I enjoy very much if my family did not approve of it”). On the other hand only one item of the eight is related to family in the H-C measure (“If a relative were in a financial difficulty, I would help within my means”).

Although there is some disagreement as to whether family interdependence is a separate construct or the essential core of collectivism (Oyserman et al., 2002), family has been suggested as the most salient of in-group memberships (Lay et al., 1998) and thus, the assessment of this concept appears to be critical in differentiating aspects of Eastern and Western value systems.

The process of acculturation involves retaining aspects of one’s culture of origin, such as identifying with the values associated with collectivism, while also taking part in the mainstream culture. However, little is understood regarding whether strong identifications to such values are more or less adaptive. The limited literature on collectivist values and their influence on well-being in Asian Americans/Canadians also lacks consensus. Lay and colleagues (1998) reported family interdependence to have a moderating relationship between daily hassles and depression; increases in depression with more daily hassles were less notably reported for those high in
family interdependence. On the other hand, some have reported negative associations between collectivism values and well-being, reasoning that it may be reflective of the conflict associated with acculturation (Iwamoto et al., 2010).

One of the goals of this study is to connect the literature on heritage values, psychological outcomes and aspects of the bicultural’s experience. It is conceivable that individuals who have negotiated the cultural values in a coherent synthesized manner, as indicated by bicultural conflict and distance, may find heritage values to be adaptive and positively contributing to one’s mental health.
Measures and Methodology

Purpose

From the state of the current literature, it is evident that studying the effects of identity, cultural values, and experiences of discrimination on psychological adjustment independently does not provide a comprehensive picture of the bicultural individual’s experience. Because these variables are intricately connected with one another, it is critical that researchers become more cognizant of the interdependence of these dimensions of experience. Thus, the aim of the study was to create a more holistic model (see figure 1) of how the various forms of identities interact with cultural values and stressors associated with acculturation. In particular, this study focused on the experiences of first-generation Asians living in Canada, since they have lived in, and been exposed to, two distinct cultures.

Figure 1 Conceptual framework of the study: to investigate the interconnectedness of the variables that impact mental health outcomes in Asian adults living in Canada
Given the limited research that ties together ethnic identity and acculturation, the current study investigated the relationship between these two identities using a bidimensional model of acculturation (Ryder, Alden, & Paulhus, 2000). In addition, to expand on the literature on bicultural identity, the impact of bicultural conflict and distance on well-being and depressive symptoms was explored. Importantly, rather than using self-esteem or a measure of positive and negative affect to assess well-being, as many previous studies have done, the present study evaluated eudaimonic psychological well-being (Ryff, 1989). Eudaimonic psychological well-being is defined as an individual’s willingness for growth, self-actualization, and feelings of a meaningful life (Lent, 2004; Ryff, 1989). Ryff’s (1989, 1995) conceptualization of eudaimonic well-being, which includes factors such as positive relationships with others, and personal growth and expressiveness may be a more comprehensive measure of well-being than measures of positive/negative affect or self-esteem.

The role of ethnic identity and its association with race-related stress was also explored. It has been asserted that Asian Americans are targeted with unique forms of racism which include: sociohistorical racism (e.g., immigration quotas on Asian peoples), general racism (e.g., assumption that all Asians are good at math), and perpetual foreigner racism (e.g., perception of Asians as foreigners who speak poor English, even if they are born in the U.S. or Canada; Liang et al., 2004). Discriminatory experiences have been shown to negatively impact psychological outcomes (e.g., Kessler et al., 1999) and have also been reported to be predictive of feelings of cultural conflict, which may hinder optimal identity development in biculturals (Benet-Martinez & Haritato, 2005). Such findings emphasize the importance of investigating personal variables that make individuals more resilient or vulnerable to race-related stress.
In addition, the relationship between cultural values and strategies of self-continuity was explored using the semi-structured self-continuity interview (Chandler et al., 2003). Multiple components of individualism and collectivism were assessed (Singelis et al., 1995), in addition to family interdependence (Lay et al., 1998), which has been suggested to be a main component of collectivism (Singelis et al., 1995; Hofstede, 1980). Finally, the study also aimed to clarify whether collectivist values had a direct relationship with psychological adjustment in Asian adults living in Canada. The conflicting findings in the literature may be an indication that other variables, such as bicultural conflict or distance are playing a moderating role.

**Hypotheses**

1. It was expected that heritage identification would be significantly related to ethnic identity, whereas mainstream identification would not contribute significantly to ethnic identity.

2. Those with a synthesized bicultural identity, reporting low levels of cultural conflict and distance would report better mental health outcomes, as indicated by eudaimonic well-being and lower levels of depressive symptomatology.

3. Collectivist values would be associated with positive mental health outcomes in low levels of cultural distance or conflict.

4. It was expected that ethnic identity achievement would have a buffering effect against race-related stress, whereas ethnic identity exploration would make one more vulnerable to perceived discrimination.
5. It was hypothesized that Asian adults in Canada would be more likely to prefer a Narrativist style of reasoning to solve the problem of self-continuity. In addition, it was expected that the Narrativist style would be associated with a component of collectivism.

Participants

Participants were recruited from the psychology research participation pool at the University of Victoria in British Columbia, Canada. Students received class credit for their participation. Although the relationship between “Eastern” cultures and collectivism values is largely dependent on the measure of collectivism used (Oyserman et al., 2002), in general, Asian countries are more collectivist than English speaking countries (Hofstede, 1980; Triandis et al., 1986; Oyserman et al., 2002). Thus, participants that identified themselves originating from an Asian heritage, including individuals from East Asia, South-East Asia and South Asia were recruited. Forty-six participants were recruited who met the following criteria: (1) they must have been born in an Asian country, (2) they must have lived in Canada for at least one-year, and (3) they must have come to Canada after the age of 6. The 6 year cut off was used to isolate 1st generation Asians from 1.5 generation (those that have immigrated before the age of 6) Asian adults. Of the 46 participants, 34 completed the self-continuity interview and the battery of questionnaires, while the remaining 12 participated only in the questionnaire portion.

Twenty-two identified as Chinese, 9 Korean, 5 Indian, 4 Taiwanese, 1 Filipino, 1 Iranian, 1 Pakistani, 1 Singaporean, 1 Vietnamese and 1 mixed Asian ancestry (East Indian and Indonesian). The mean age of the participants was 21.13 ($SD = 2.48$). Thirty-two (69.6%) were women, and 14 were men (30.4%). In regards to residency status, 20 (43.5%) were international
students, 18 (39.1%) were Canadian Citizens, and 8 (17.4%) were permanent residents. The mean number of years lived in Canada was 7.46 ($SD = 4.60$).

**Measures**

**Demographic information.** Information such as participants’ age, gender, place of birth, and length of residence in Canada was gathered. The full questionnaire can be found in Appendix A.

**Individualism-Collectivism.** The Horizontal and Vertical Individualism and Collectivism Scale (Singelis et al., 1995) was used in this study as one of the two measures to assess individualism and collectivism. The scale includes four eight-item scales to assess four constructs of individualism and collectivism: vertical-individualism, vertical-collectivism, horizontal-individualism and horizontal-collectivism. Participants were asked to rate each item on a 9-point scale from 1 (*strongly disagree*) to 9 (*strongly agree*). Higher internal consistency has been reported for this measure compared to more general measures of individualism and collectivism (range $\alpha = .67$ to .74; Singelis et al., 1995).

Family Allocentrism Scale (Lay et al., 1998) was used for a measure of family connectedness. Family connectedness or interdependence is defined as relatedness to family, seeking harmony with family, and seeking advice and support from family members. The scale consists of 21-items and participants reported their agreement with each statement (e.g., “I have certain duties and obligations in my family”) on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Good internal consistency has been reported for Asian Canadian and European Canadian university students (range $\alpha = .80$ to .84).
**Ethnic Identity.** The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to assess ethnic identity comprising of two factors: ethnic identity search and ethnic identity achievement. Although the two scales are closely related, they have been found to be distinct constructs and hence, have been used separately to gain a better understanding of the process of ethnic identity development (French, Seidman, Allen & Aber, 2006). The scale consists of fourteen items that are rated on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). The MEIM has been used extensively in culturally diverse individuals including Asian American college samples. The overall reliability of the 14-item scale was reported to have good internal reliability (α = .90; Phinney, 1992).

**Bicultural Identity.** The Bicultural Identity Integration Scale (BIIS; Benet-Martinez & Haritatos, 2005) consists of 8-items to measure two independent constructs, including cultural conflict (feeling torn between two cultural identities) and cultural distance (perceiving the two cultural identities as separated and dissociated). Higher scores indicate more distance and more conflict. The reported alphas for conflict and distance scales were .74 and .69 respectively (Benet-Martinez & Haritatos, 2005).

The Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000) was also used to assess participants’ identification with their heritage and mainstream cultures. The scale is a 20-item questionnaire, with each cultural orientation consisting of 10-items which are identical in wording except for the culture that is referenced. Items are rated on a 9-point scale, ranging from 1 (disagree) to 9 (agree). Values, social relationships and adherence to traditions are the three domains that are measured with this scale. This bidimensional model of acculturation has been reported to be higher in validity than an unidimensional model. Cronbach
alpha coefficients for Chinese and non-Chinese East Asian undergraduates living in North America were .91 and .92 respectively for the heritage dimension and .89 and .85 for the mainstream dimension (Ryder et al., 2000).

**Race related stress.** Asian American Racism-Related Stress Inventory (AARRSI; Liang, Li & Kim, 2004) was used to measure race-related stress. The scale consists of 29-items with three subscales. The Sociohistorical Racism subscale measures the amount of stress resulting from the awareness of historical and institutional racism (e.g., “You learn that Asian Canadians historically were targets of racist actions”). The General Racism subscale indicates items related to one’s experiences with stereotypes of Asian Americans (e.g., “Someone tells you that they heard that there is a gene that makes Asians smart”). The Perpetual Foreigner Racism subscale measures the stress related to the perception that all Asian Americans are immigrants and nonnative “Americans” (e.g., “You are asked where you are really from”). Items were modified to fit the Canadian context such that, “Asian American” were replaced with “Asian Canadian” and items with “U.S.” were replaced with “Canada.” Participants were asked to rate the level of stress to each statement on a 5-point scale (1 = this event has never happened to me or someone I know; 2 = this event happened but did not bother me; 3 = this event happened and I was slightly bothered; 4 = this event happened and I was upset; 5 = this event happened and I was extremely upset). Scores were summed to indicate levels of Asian Americans’ experiences with racism related stress. Coefficient alpha for AARRSI was reported as .95 and has been used in a broad sample of Asian Americans, including those from East Asia, South-East Asia and South Asia (Liang et al., 2004).
Mental health. The Ryff’s Scale of Psychological Well-Being (SPWB; Ryff, 1989) was used as one of the two measures of mental health outcomes in this study. Ryff’s conceptualization of eudaimonic well-being is assessed in this measure, which consists of six dimensions: Positive Relationships with Others (PR), Autonomy (AU), Environmental Mastery (EM), Personal Growth (PG), Purpose of Life (PL), and Self-Acceptance (SA). Positive Relationships refers to having trusting and close relationships with others (e.g., “Maintaining close relationships has been difficult and frustrating for me”). Autonomy pertains to independence, self-determination and being able to regulate behaviors (e.g., “I tend to be influenced by people with strong opinions”). Environmental Mastery refers to individuals’ sense of control over life situations (e.g., “The demands of everyday life often get me down”). Personal Growth measures person’s desire to continue to develop as a person and in one’s potential (e.g., “I think it is important to have new experiences that challenge how you think about yourself and the world”). Purpose of Life is the belief that there is a purpose and meaning to life (e.g., “Some people wander aimlessly through life, but I am not one of them”). Finally, Self-Acceptance is having positive feelings toward oneself and one’s past (e.g., “When I look at the story of my life, I am pleased with how things have turned out”). The 9-items per scale version was used for this study, which has acceptable internal consistency and factorial validity (range $\alpha = .61$ to $.83$; Vandierendonck, 2004).

Depressive symptomatology was measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) which contains 20-items (e.g., “I was bothered by things that usually don’t bother me”). Participants were asked to indicate the frequency of symptoms over the past week on a 4-point scale ranging from 0 (rarely or none of the time; less
than 1 day) to 3 (most or all of the time; 5-7 days). The scale has been reported to be a better measure for discriminating depressive severity in college students than the Beck Depression Inventory (Santor, Zuroff, Ramsay, Cervantes & Palacios, 1995), and high internal consistency within the general population has been reported ($\alpha = .85$; Radloff, 1977).

**Self-continuity.** A semi-structured interview employed by Chandler and colleagues (2003) was used. The concept of self-continuity was introduced by providing the participants with a story involving character change. For this study, participants read a story used in the previous studies (comic book versions of *Les Misérables*). First, questions were asked about whether the protagonist is the same person at the end of the story as he was in the beginning and how the character remains the same person even after significant character change. Subsequently, participants were asked about continuity in their own lives. They were first asked to describe themselves when they were 10 years old and to describe themselves currently. Changes within themselves were pointed out and the participants were asked how they have remained the same person even with the noted changes. Prompts for all interview questions can be found in Appendix J. These responses were then transcribed and coded to identify the style of reasoning used.

**Procedure**

Participants were asked to complete a questionnaire package online consisting of the following eight measures:

1. The Horizontal and Vertical Individualism and Collectivism Scale (Singelis et al., 1995)
2. Family Allocentrism Scale (Lay et al., 1998)

4. Bicultural Identity Integration Scale (Benet-Martinez & Haritatos, 2005)

5. Vancouver Index of Acculturation (Ryder et al., 2000)

6. Asian American Racism-Related Stress Inventory (Liang, et al., 2004)

7. Scale of Psychological Well-Being (Ryff, 1989)


Approximately 30 minutes were required to complete these measures. In addition, the first 34 participants were asked to take part in the standard self-continuity interview (Chandler et al., 2003) which required approximately 1 hour to complete. Participants were informed that their participation was voluntary and that they could withdraw at any time during the completion of the questionnaires or the interview.
Results

Preliminary Analyses

Preliminary analyses were conducted to examine possible associations between the variables of interest and demographic variables such as, gender, ethnicity and residency status. If there was a significant main effect, the demographic variable was entered as a covariate in the regression analysis.

Gender differences. Analyses of Variance (ANOVAs) were conducted to examine differences between men and women. There was a significant main effect of gender on ethnic identity exploration ($F (1,44) = 3.84, p = .056$). The results indicated that women ($M = 14.38, SD = 3.11$) reported higher scores in ethnic identity exploration than men ($M = 12.36, SD = 3.46$). Women ($M = 14.5, SD = 4.31$) also reported higher levels of cultural conflict than men ($M = 11.5, SD = 4.42$), $F (1,44) = 4.65, p < .05$.

Ethnic groups. ANOVAs were performed to examine possible differences between ethnic groups. Due to limited sample size, analyzing each ethnic group separately was not possible. Thus, East Asian participants ($N = 34$) were compared with Southeast and South Asian participants ($N = 12$). There were no significant differences between the two groups.

Residency status. ANOVAs were performed to examine differences between residency statuses. International students ($N = 20$) were compared with permanent residents and Canadian citizens ($N = 26$). Differences were found on the acculturation variable assessing mainstream cultural identification ($F (1,44) = 7.09, p = .01$). Permanent residents and Canadian citizens scored higher ($M = 68.08, SD = 12.02$) than international students ($M = 57.25, SD = 15.58$). In
addition, a significant main effect was observed for cultural distance ($F(1, 44) = 8.22, p< .01$). International students indicated higher levels of cultural distance ($M = 12.55, SD = 3.71$) than permanent residents and Canadian citizens ($M = 9.46, SD = 3.56$).

**Number of Years in Canada.** Pearson product-moment correlation was run with the number of years participants have lived in Canada and the variables of interest. Cultural distance was significantly correlated with the number years participants have lived in Canada, $r = -.49, p < .01$.

**Correlation analysis.** Pearson product-moment correlations with the predictors and outcome variables were conducted. *Table 1* presents the mean item scores, intercorrelation coefficients, and internal reliability for CES-D, SPWB, MEIM, VIA, BII and AARRSI. All scales demonstrated good reliability. Results indicated that ethnic identity achievement (MEIM achievement) was positively related to well-being (SPWB), whereas cultural conflict (BII conflict) was negatively associated with SPWB and positively correlated with depression (CES-D). Significant positive correlations were found between race-related stress (AARRSI) and the ethnic identity subscales (MEIM exploration and MEIM, achievement)
### Table 1

**Correlations, Means, Standard Deviations, and Internal Consistency Estimates**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>1 CES-D</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td>2 SPWB</td>
<td>-0.62**</td>
<td></td>
<td></td>
<td></td>
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<td>3 MEIM</td>
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<td>0.96**</td>
<td>0.78**</td>
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<td></td>
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<td>0.47**</td>
<td>0.62**</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7 VIA mainstream</td>
<td>0.07</td>
<td>0.17</td>
<td>-0.4**</td>
<td>-0.51**</td>
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<td>-0.09</td>
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<td>-0.4**</td>
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<td>-0.09</td>
<td>-0.19</td>
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<tr>
<td>9 BII distance</td>
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<td>0.13</td>
<td>0.18</td>
<td>0.12</td>
<td>0.2</td>
<td>0.29*</td>
<td>-0.18</td>
<td>-0.14</td>
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<tr>
<td>10 AARRSI</td>
<td>0.12</td>
<td>-0.19</td>
<td>0.46**</td>
<td>0.53**</td>
<td>0.36*</td>
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<td>-0.24</td>
<td>0.18</td>
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<td>2.94</td>
<td>2.75</td>
<td>3.07</td>
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<td>6.34</td>
<td>2.71</td>
<td>2.7</td>
<td>2.18</td>
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<td>0.94</td>
<td>0.82</td>
<td>0.93</td>
<td>0.9</td>
<td>0.88</td>
<td>0.8</td>
<td>0.84</td>
<td>0.94</td>
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</tbody>
</table>

*Note.* CES-D = Center for Epidemiological Studies Depression Scale, SPWB = Scale of Psychological Well-Being, MEIM = Multigroup Ethnic Identity Measure, VIA = Vancouver Index of Acculturation, BII = Bicultural Identity Integration, AARRSI = Asian American Racial Stress Inventory.

* $p<.05$, ** $p<.01$
Hypothesis 1

To examine the first research question concerning the relationship between acculturation and ethnic identity, two hierarchical regressions were run with one model having ethnic identity achievement as the dependent variable and the other having ethnic identity exploration as the dependent variable.

Since preliminary analyses suggested that residency status had a significant main effect on the acculturation variables, residency status was entered in the first step of the regression model, followed by VIA heritage cultural values in the second step and VIA mainstream cultural values in the third step of the analysis. Results suggested that residency status ($\beta = -.07$, ns) was not a significant predictor and thus, was taken out of the final model (see Table 2). VIA mainstream was a marginally significant predictor of ethnic identity achievement ($\beta = -.23$, $p = .053$); however, it was taken out of the regression model because the p-value was greater than .05. VIA heritage ($\beta = .172$, $p < .001$) was a significant predictor of ethnic identity achievement ($R^2 = .38$), $F(1,44) = 26.76$, $p < .001$. 
Table 2

*Hierarchical Regression Results for Ethnic Identity Achievement*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
</tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Constant</td>
<td>9.36</td>
<td>2.40</td>
<td></td>
<td>.38</td>
</tr>
<tr>
<td>VIA Heritage</td>
<td>.18</td>
<td>.03</td>
<td>.62**</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>14.23</td>
<td>3.37</td>
<td></td>
<td>.43</td>
</tr>
<tr>
<td>VIA Heritage</td>
<td>.17</td>
<td>.03</td>
<td>.59**</td>
<td></td>
</tr>
<tr>
<td>VIA Mainstream</td>
<td>-.07</td>
<td>.04</td>
<td>-.23</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* VIA = Vancouver Index of Acculturation

**p<.01

A second regression model (see table 3) was run with ethnic identity exploration as the dependent variable. Results suggest that VIA heritage (β = .091, p = .001) and VIA mainstream (β = -.108, p < .001) were significant predictors of ethnic identity exploration (R² = .44), F(2,43) = 16.87, p<.001. In contrast to the first regression model, VIA mainstream accounted for half of the variance (R² = .22) of the total model.

Table 3

*Hierarchical Regression Predicting Ethnic Identity Exploration*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<td><strong>Step 2</strong></td>
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<td>.03</td>
<td>.42**</td>
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<td>VIA Mainstream</td>
<td>-.11</td>
<td>.03</td>
<td>.47**</td>
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</tbody>
</table>

*Note.* VIA = Vancouver Index of Acculturation

**p<.01

**
Hypothesis 2

The second research question investigated the relationship between bicultural conflict and distance and mental health outcomes. A hierarchical regression analysis was conducted to investigate the relative impact of cultural conflict and distance on well-being and depressive symptoms. In the first step, gender, residency status, and number of years in Canada was added first, since preliminary analysis suggested main effects of these variables on cultural conflict and distance. Cultural conflict and distance were added in the second step. Results indicated that cultural conflict was the only significant predictor of well-being (see table 4; $\beta = -1.31, p < .001$), accounting for a significant portion of the variance $R^2 = .160, F(1,44) = 8.39, p < .001$. Cultural conflict was also the only significantly predictor of depression (see table 5; $\beta = .827, p < .01$), $R^2 = .123, F(1,44) = 6.17, p < .001$. Cultural distance was not a significant predictor of well-being or depression.

Table 4

<table>
<thead>
<tr>
<th>Simple Regression for Well-Being</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$R^2$</th>
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<td>Constant</td>
<td>171.83</td>
<td>6.67</td>
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<tr>
<td>Cultural Conflict</td>
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<td>.47</td>
<td>-.40**</td>
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</table>

**$p < .01$**

Table 5

<table>
<thead>
<tr>
<th>Simple Regression for Depressive Symptoms</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$R^2$</th>
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<td>.33</td>
<td>.35*</td>
<td>.12</td>
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</table>

*p<.05
Hypothesis 3

The third hypothesis looked at the relationship between cultural values and mental health outcomes and the interaction with cultural conflict and distance. Mean item scores, intercorrelation coefficients, and internal reliability for the predictors and outcome variables are presented in Table 6. Out of the predictor variables, V-C was the only variable negatively related to well-being.

Table 6
Correlations, Means, Standard Deviations, and Internal Consistency Estimates

<table>
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<tr>
<th></th>
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<tbody>
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<td>VI</td>
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<td>.44**</td>
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<td>6</td>
<td>SPWB</td>
<td>-.45**</td>
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<td>-.01</td>
<td>.24</td>
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<td>CES-D</td>
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<td>.032</td>
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<tr>
<td>8</td>
<td>BII Conflict</td>
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<td>-.01</td>
<td>-.07</td>
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<td>-0.4**</td>
<td>0.35*</td>
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<tr>
<td>9</td>
<td>BII Distance</td>
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<td>-.17</td>
<td>-.15</td>
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<tr>
<td></td>
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Note. VC = Vertical-Collectivism, VI = Vertical-Individualism, HC = Horizontal-Collectivism, HI = Horizontal-Individualism

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

Interaction terms were created by multiplying the centered bicultural conflict with the individualism and collectivism variables (V-C, V-I, H-C, H-I, family allocentrism). This step was repeated using bicultural distance. Ten regression analyses were run with
the first five models having well-being as the dependent variable and the latter five
having depressive symptoms as the outcome variable. The regression models included the
interaction variable and the two main effect variables. No significant results were found
in the regression analyses.

To integrate the findings on ethnic identity, bicultural conflict and vertical-
collectivism on well-being, a hierarchical regression was run with these three variables
(see Table 7). Ethnic identity achievement was entered in the first step, followed by
bicultural conflict in the second step, and V-C in the third step. Together, ethnic identity
achievement ($\beta = 1.57$, $p < .001$), bicultural conflict ($\beta = -.94$, $p < .05$) and V-C ($\beta = -.71$, $p < .001$) accounted for a significant portion of well-being $R^2 = .49$, $F(3,42) = 13.41$,
$p < .001$.

Table 7
Hierarchical Regression Predicting Well-Being

<table>
<thead>
<tr>
<th>Step</th>
<th>B</th>
<th>SE B</th>
<th>B</th>
<th>R^2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>131.86</td>
<td>10.79</td>
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<tr>
<td>Ethnic Identity Achievement</td>
<td>1.00</td>
<td>.49</td>
<td>.30*</td>
<td>.09</td>
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<td><strong>Step 2</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Constant</td>
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<td></td>
</tr>
<tr>
<td>Ethnic Identity Achievement</td>
<td>.95</td>
<td>.46</td>
<td>.30*</td>
<td></td>
</tr>
<tr>
<td>Cultural Conflict</td>
<td>-1.31</td>
<td>.45</td>
<td>-.39**</td>
<td>.24</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>165.97</td>
<td>10.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Identity Achievement</td>
<td>1.57</td>
<td>.40</td>
<td>.46**</td>
<td></td>
</tr>
<tr>
<td>Cultural Conflict</td>
<td>-.94</td>
<td>.38</td>
<td>-.28*</td>
<td></td>
</tr>
<tr>
<td>Vertical Collectivism</td>
<td>-.71</td>
<td>.16</td>
<td>-.54**</td>
<td>.49</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01
Hypothesis 4

The fourth research question investigated the relationship between race-related stress and ethnic identity. It was predicted that ethnic identity achievement would be negatively related to experiences of race related stress and ethnic identity exploration would be positively related to race-related stress. Initial correlations suggested a positive relationship between ethnic identity exploration, ethnic identity achievement and race-related stress. A hierarchical regression model was run initially with gender in the first step of the regression model, followed by ethnic identity exploration. Gender was not a significant predictor and thus, was excluded from the model ($\beta = .073$, ns). Ethnic identity exploration ($\beta = 3.20$, $p<.001$) accounted for a significant portion of race-related stress scores $R^2 = .283$, $F(1,44) = 17.37$, $p<.001$; see table 8.

Table 8

*Simple Regression Results for Race-Related Stress*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>19.24</td>
<td>10.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Identity Exploration</td>
<td>3.20</td>
<td>.77</td>
<td>.53**</td>
<td>.28</td>
</tr>
</tbody>
</table>

A simple regression analysis (see Table 9) was run with ethnic identity achievement as the independent variable to predict race-related stress. Ethnic identity achievement ($\beta = 1.63$, $p<.05$) accounted for a significant variance of race-related stress scores $R^2 = .13$, $F(1,44) = 6.70$, $p<.05$. Therefore, results indicate that although ethnic identity exploration and achievement were both associated with race-related stress, ethnic identity exploration predicted much more of the variance than ethnic identity achievement.
Table 9

*Simple Regression Results for Race-Related Stress*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>28.39</td>
<td>13.76</td>
<td></td>
<td></td>
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<tr>
<td>Ethnic Identity Achievement</td>
<td>1.63</td>
<td>0.63</td>
<td>0.36*</td>
<td>0.13</td>
</tr>
</tbody>
</table>

*p<.05

**Hypothesis 5**

Qualitative Analyses

Interviews were coded by an experienced coder for reasoning style through the standard coding procedure used in the self-continuity interview. Of the 34 participants, one participant declined to finish the interview and thus, this interview was not coded. Results indicated that 22 out of the 33 participants preferred the Essentialist style of reasoning, whereas the remaining 11 indicated a preference to the Narrativist style.

The Horizontal and Vertical Individualism and Collectivism Scale indicated that participants reported both individualistic and collectivistic values. First, analyses were run on demographic variables to rule out the possibility of gender, residency status and ethnicity having an association with the Essentialist or Narrativist style of reasoning. Fisher’s Exact Tests were run on gender, residency status (international students vs. permanent residents and citizens), and ethnicity (East-Asian vs. South/South-East Asian). The results revealed that there were no significant relationship between the preferred style of self-continuity reasoning and the demographic variables.

Five binary logistic regressions were run on each of the hypothesized variables: VC, VI, HC, HI, and family allocentrism. Statistically significant results were not found,
indicating that levels of individualism and collectivism values did not predict the preferred style of reasoning.
Discussion

The goal of the present study was to link the relationships between identity, cultural values and stressors associated with the acculturation process. The findings provide a broad picture of how these variables are intricately connected with one another and demonstrate the complexity of the experiences of Asian young adults living in Canada. First, results indicated that one’s level of identification to the mainstream and heritage cultures were dependent on one’s stage in ethnic identity development. Similarly, one’s status in ethnic identity development was differentially associated with reported levels of race-related stress. Bicultural conflict and vertical collectivism were negatively associated with psychological outcomes, whereas ethnic identity achievement was positively associated with well-being. Finally, strategies of self-continuity were not associated with the individualism-collectivism measures assessed in the study.

Ethnic Identity and Acculturation

The current study investigated the relationship between ethnic identity and the acculturation process in Asian adults living in Canada. Past research has often used a one-dimensional measure of acculturation in which the results suggested that assimilating or identifying strongly with the mainstream culture was negatively associated with ethnic identity (Chae & Foley, 2010). However, a one-dimensional measure of acculturation assumes that identification with the mainstream culture is inversely related to identification with one’s heritage culture. Thus, in the present study, a bidimensional
measure of acculturation was used to better tease apart the relative impact of mainstream and heritage cultural identifications on one’s ethnic identity.

Research in identity development has suggested that individuals tend to move from an unexamined attitude in childhood, to a phase of exploration in adolescence, followed by a secure achieved ethnic identity nearing the end of adolescence (Phinney, 1989). Results of the study indicated that the level of identification with the heritage and mainstream cultures depended on one’s stage in ethnic identity development. Specifically, the stage of ethnic identity moratorium or exploration was positively related to identification with the heritage culture and inversely related to mainstream identification. During the period of ethnic identity search, individuals are actively engaged in learning more about one’s culture to clarify the meaning and the implications of being part of that particular ethnic group (Phinney 1989). Therefore, the finding that ethnic identity search was positively associated with identification with one’s heritage culture seems congruent with the literature.

In addition, it appears that when individuals are experiencing a phase of identity search, they may report a decline in identifying with the mainstream culture, while endorsing and expressing interest in heritage cultural practices and values. The decrease in mainstream identification during exploration may be due to how ethnic identity development is triggered. It has been suggested that ethnic identity exploration is often elicited when individuals begin to recognize that the surrounding society’s values and norms are incongruent with one’s own (Bosma & Kunnen, 2001). In addition, other studies have indicated that ethnic minorities in this stage often express a heightened awareness of racial discrimination (Greene, Way, & Pahl, 2006; Pahl and Way, 2006;
Phinney & Tarver, 1988). Thus, stressors associated with the mainstream culture that individuals in the exploration phase experience, such as noticing conflicting cultural values and the increase in perceived discrimination, may lead individuals to reduce their engagement and identification with the mainstream culture.

On the other hand, ethnic identity achievement only significantly predicted heritage identification. Although the inverse relationship between mainstream identification and ethnic identity achievement neared significance, compared to ethnic identity exploration, mainstream identification only contributed a small portion of the variance (5.3%). Therefore, results suggest that once individuals feel more secure about their ethnic identity, mainstream identification may have less of an impact on one’s identity status. Rather, one’s identification to the heritage culture seems to be the driving factor for ethnic identity achievement. Ethnic identity achievement generally refers to the internalization and acceptance of one’s ethnic group membership (Phinney, 1989). It has been suggested that individuals who have reached this stage feel good about who they are and feel proud to be part of their ethnic group. In addition, individuals in this stage tend to be more comfortable with both cultural parts of themselves (Kim, 1981). Thus, once individuals have reached a secure sense and an acceptance of what their ethnicity means to them, they may be more inclined to endorse identification with both their heritage and mainstream cultures.

Researchers have reported that the surrounding cultural environment plays a dynamic and essential role in ethnic identity development (Berry, 1997; Berry et al., 2006). The current study adds to the literature by suggesting a differential relationship between acculturation and the stages of ethnic identity, in which maintaining values and
practices of one’s culture of origin is critical in ethnic identity development, but the impact of mainstream cultural values decrease as the individual reaches ethnic identity achievement.

**Ethnic Identity and Race-Related Stress**

The experience of discrimination is one of the most salient aspects of stress related to the acculturation process. Hence, to further expand the findings on acculturation and ethnic identity, the present study also investigated the relationship between ethnic identity and perceived discrimination. It was expected that the level of race-related stress would be dependent on one’s ethnic identity status. In particular, it was predicted that ethnic identity exploration would be positively associated with perceived discrimination and ethnic identity achievement would be negatively related. Findings partially confirmed the hypothesis. Both ethnic identity exploration and ethnic identity achievement were positively associated with race-related stress. However, ethnic identity exploration accounted for a larger portion of the variance of reported race-related stress. First, these results confirm past findings that have suggested that the process of exploration may place one at greater psychological vulnerability to perceive racism (Phinney & Tarver, 1988; Pahl and Way, 2006; Greene, Way, & Pahl, 2006). Not only have discriminatory experiences been suggested to initiate the exploration process, but a dynamic and reciprocal relationship between the two have been suggested; individuals who reflect more about one’s ethnic group membership are more likely to report discriminatory experiences (Pahl & Way, 2006).

Ethnic identity achievement, which comprises the affective component of ethnic identity (e.g., feelings of pride, belonging) continued to be positively related to reported
race-related stress. This supports studies that have found an exacerbating effect of ethnic identity on racial discrimination (Yoo & Lee, 2008), and contrasts other studies that have suggested that the affective component of ethnic identity was protective against race-related stress (Greene et al., 2006 & Lee, 2005). Differences in methodology may account for these inconsistencies. For instance, Lee (2005) investigated the moderating effect of ethnic identity on the relationship between discriminatory experiences and depressive symptoms. In the current study, a measure that directly assessed stress caused by discriminatory experiences was used, which asked participants to rate how distressing they found each experience.

Despite these inconsistencies, the current findings add to the literature that supports the rejection sensitivity theory (Downey & Feldman, 1996; Downey, Khouri, & Feldman, 1997). The rejection sensitivity theory posits that previous rejection experiences, such as discrimination, make individuals more distressed about future possible rejections. Scholars have reported that individuals high in ethnic identity may be more rejection sensitive as they are more invested in, and are more likely to identify with their ethnic group (Downey, Purdie, Davis, & Pietzak, 2002; Yoo & Lee, 2005). Parallel with this finding, other studies have found that a strong ethnic identity may increase the negative association between racial discrimination and well-being among Asian Americans (Greene et al., 2006; Noh et al., 1999). In addition, past research has indicated ethnicity as an identity may not influence health, but rather, ethnicity as a structure, which includes experience of racism and occupational class may have a direct link to health outcomes in ethnic minorities (Karlsen & Nazroo, 2002).
The findings of the current study suggest that one should not simply assume that a strong ethnic identity unconditionally protects one from race-related stress; ethnic identity may make individuals more sensitive to race-related stress, with a particular vulnerability for those in the process of exploring their ethnic identity. In addition, it is important to acknowledge the bidirectional relationship between ethnic identity and race-related stress. Thus, experiences of discrimination may make one’s ethnic group membership to become more salient and therefore, fuelling the process of ethnic identity development.

**Identity, Cultural Values and Mental Health**

Extending the literature on bicultural identity, the present study investigated the relationship between cultural conflict and cultural distance with mental health outcomes in Asian adults in Canada. Past research on biculturalism often failed to distinguish between various aspects of the bicultural’s experience, whereas more recent research has suggested that cultural harmony or conflict and cultural blendedness or distance are two separate constructs. Thus, in the current study, cultural distance and conflict were assessed to predict mental health outcomes. Analysis revealed that bicultural conflict was significantly related to eudaimonic well-being and depressive symptomatology. More specifically, those that indicated higher levels of cultural conflict reported lower levels of well-being and higher levels of depressive symptoms. However, bicultural distance was not significantly related to psychological adjustment. Therefore, experiences of cultural clash, and feeling that the two cultures were incompatible was significantly related to mental health, whereas compartmentalizing and reporting that the two cultural identities were dissociated did not appear to impact well-being and depression.
Benet-Martinez and Haritatos (2005) reported that cultural conflict was associated with the affective aspects of experience, such as perceived discrimination, whereas cultural distance was related to learning based aspects of acculturation such as language fluency and cultural competence pertaining to the mainstream culture. Thus, the current results seem to extend these findings that cultural conflict is predicted by affective experiences of acculturation that may trigger greater psychological distress than performance or learning based experiences that have been associated with cultural distance.

The results are also congruent with the research on acculturation strategies. The acculturations strategy of “integration” or being able to identify with both heritage and mainstream cultural values and practices has been positively related to psychological adjustment in the literature (Berry, 1997; Phinney et al., 2001). The results of the current study suggest that it may be the lack of cultural conflict, in addition to being able to identify with the two cultures that contributes to positive psychological functioning.

In addition, consistent with the ethnic identity theory (Phinney, 1992) it was indicated that ethnic identity achievement was positively related to SPWB. This is congruent with past studies that have demonstrated a positive association between ethnic identity and well-being in Asian Americans (Kang et al., 2003; Yoo & Lee, 2005). Therefore, Asian university students who have a clear sense of what their ethnicity means to them, while reporting ethnic pride and belonging to one’s group reported higher levels of eudaimonic well-being. The SPWB measures aspects of well-being such as self-acceptance, positive relationships with others and purpose in life, which provides a
different dimension of well-being than other commonly used measures, which assesses positive and negative affect.

The current study also looked at the relationship between individualistic and collectivistic values with adjustment outcomes in first-generation Asian adults living in Canada. It was predicted that collectivistic values would be positively related to well-being and negatively associated with depression in the absence of cultural conflict and distance. However, the results failed to find any significant interaction effects between these variables. The only significant correlation was an inverse relationship between V-C and well-being. V-C has been suggested to be an essential element of collectivism and researchers have reported that out of other elements of individualism and collectivism, V-C had the only strong correlation with Asian Americans and a negative correlation with European Americans (Singelis et al., 1995). Thus, the negative association between V-C and well-being appear to have important implications for Asian adults in Canada.

Researchers have indicated that individuals high in V-C often internalize the norms of the in-group. When an individual behaves according to the norms of the in-group higher well-being was reported, whereas lower levels of well-being was seen for those who were opposed to the in-group norms (Triandis, 2000). It can be speculated that participants of the current study may be reflective of those who may have internalized the norms of one’s group membership yet struggling to behave congruently with these norms in a Western cultural context.

The current findings support past research that have indicated a negative association between collectivism values and well-being (Iwamoto et al., 2010), which may be reflective of the discordance that individuals experience when attempting to adopt
to the mainstream cultural values and beliefs while at the same time adhering to one’s heritage cultural values (Kim & Abreu, 2001). This experience in cultural difference has been suggested to contribute to acculturative distress to negatively impact well-being (Kim & Omizo, 2005). The present findings indicated that cultural conflict, as assessed by Benet-Martinez et al. (2005) was not associated with cultural values. Acculturative stress is a broad concept that includes numerous factors that contribute to distress when adjusting to a new environment (e.g., linguistic challenges, loss of social support, difficulty establishing new social ties, discrimination; Berry, Kim, Minde, & Mok, 1987). Hence, it is possible that dimensions of acculturative stress that were not captured by the current measure could be attributing to the present findings.

Past research has indicated a complex relationship between cultural values and well-being, which is well beyond the scope of the current study. Personality variables, social support and the person-environment fit are a few examples of additional variables that play an indirect role in the association between individualism-collectivism and well-being (Triandis, 2000). In addition, researchers that have looked at the relationship between these two variables often have used a conceptualization of well-being that is different from the eudaimonic measure of well-being used in the present study. In sum, cultural conflict and distance did not attribute to the relationship between individualism-collectivism and psychological adjustment. However, ethnic identity achievement, bicultural conflict and V-C accounted for half of the variance of eudaimonic well-being.

Thus, for first-generation Asians young adults and international students, identity status contributed significantly to psychological adjustment. The current findings indicated that having a clear sense of one’s ethnicity is positively related to eudaimonic
well-being. In addition, it was found that feeling conflicted between the two cultures is negatively associated with mental health outcomes in Asian-Canadians, whereas cultural distance or the dissociation of the two cultural identities did not impact psychological adjustment. Finally, endorsing aspects of collectivism, in particular seeing oneself as part of an in-group and accepting inequalities within the collective, was negatively associated with well-being.

**Self-Continuity & Cultural Values**

The ability to perceive oneself as continuous across time is an important aspect of one’s identity. The present study aimed to investigate if preferred reasoning style to explain one’s self-continuity would be dependent on values of individualism and collectivism.

The distribution of Essentialist and Narrativist style of reasoning was similar to the non-Aboriginal sample studied in the past (Chandler et al., 2003) The majority (N = 22; 67%) of the sample were Essentialists and a smaller portion (N = 11; 33%) of the participants were Narrativists. The number of Narrativists were not as prominent as seen in the Aboriginal sample (86%); however, it may suggest a slightly higher proportion than previously seen in a non-Aboriginal samples, which indicated that about 24% preferred the Narrativist strategy and 76% indicated a preference to the Essentialist strategy. However, due to the small sample size of the study, it cannot be concluded with confidence that the current proportion of Narrativists and Essentialists is significantly different from previously studied mainstream participants.

Participants in this study endorsed both individualistic and collectivistic values. However, participants reported greater levels of horizontal dimensions of individualism
and collectivism than vertical dimensions of individualism and collectivism. The horizontal dimensions refer to a sense that individuals should be free from others’ influence, whereas verticality is related to recognizing that inequalities between people are necessary for a certain amount of conformity (Singelis et al., 1995).

Demographic variables such as gender, ethnic group, and residency status were not significantly associated with Essentialist or Narrativist styles of reasoning. There was no significant relationship between levels of individualism and collectivism and type of strategy chosen. Examining the means of the variables indicated that there was a slight trend toward the hypothesized direction; those who preferred a Narrativist strategy indicated higher levels of V-C. However, due to the small number of individuals coded as Narrativists in the study (N = 11), it is probable that there was not enough statistical power for a significant result. Thus, it remains uncertain as to what variable is related to Narrativist and Essentialist style of reasoning.

Chandler and colleagues (2003) reported similar findings; Aboriginal youths scored high on both the independent and the interdependent scale and they also failed to find a relation between individualism and collectivism and styles of self-continuity. By using a four dimensional measure of individualism and collectivism, the current study aimed to tease apart possible cultural variables that would be associated with the preferred styles of self-continuity. However, the results of the study indicate that individualism, which has been associated with using internal, stable causes to explain behaviours, and collectivism, relating to using external factors to explain events (Markus & Kitayama, 1991), were not associated with how individuals solve the problem of self-continuity.
The tendency to prefer one style of reasoning to the other was related to one’s implicit theories of personality, with Narrativists leaning towards personality change, where as Essentialist reporting unchangeable personality traits (Chandler, et al., 2003). Furthermore, literature in folk psychology suggest that each culture generates narratives as to how people are and why they act in various ways which can shape the way individual’s make meaning (Bruner, 1990). Similarly, it has been suggested that the strong oral history of Aboriginal peoples may have led to a more Narrativistic understanding of the self (Chandler et al., 2003). Thus, the high proportion of Narrativists in the Aboriginal population may be unique to this particular culture, and further research with non-Western cultures are needed to clarify this question.

**Limitations and Future Directions**

Caution is warranted in interpreting the reported results. One of the main limitations of the current study was the sample. The heterogeneity of the sample in terms of ethnicity and residency status makes it difficult to generalize the findings to all Asians living in Canada. In particular, a large proportion of the participants (43.5%) were international students; it has been suggested that the intercultural experiences of international students may be unique from immigrants (Bochner, 2006).

There are numerous distinct Asian ethnic groups with various generational status, backgrounds and experiences living in Canada. Not only are there distinctive differences in culture with each ethnic group, international students, first-generation immigrants and post-immigrants have qualitatively dissimilar experiences in regards to the construction of ethnic identity and the process of acculturation. For instance, historical experiences that may serve as indicators of how a particular ethnic group was perceived in the past
can continue to shape how that group is viewed currently within the society and can significantly impact the degree of oppression experienced by the individual. The process of ethnic identity and acculturation is dynamic and complex and it is heavily influenced by the current societal context. Similarly, the degree of institutional completeness (Breton, 1964) or the existence of ethnic organizations that enable immigrants to function within their ethnic communities has been indicated to impact the integration and the experiences of immigrants to the community. In comparison to other major Canadian cities such as Vancouver or Toronto, the city of Victoria is proportionately less ethnically diverse. Thus, the results of the study may be limited to Asian young adults living in a largely European-Canadian environment.

Furthermore, the homogeneity of the sample was also of concern; the participants in the study were similar in age, they were educated and relatively well-adjusted with few depressive symptoms and low levels of perceived discrimination. Another important consideration is the socioeconomic status of the participants, which was not assessed in the present study. Considering that the majority of the participants were international students, it is possible that the present sample represents an economically privileged group. Furthermore, the small sample size made it difficult to compare ethnic groups, differences in residency status due to restricted statistical power. The cross-sectional nature of the data was another limitation of the study. Longitudinal studies may help better understand the process of acculturation and the development of ethnic identity over time.

Although the measures that were used in the study were comprehensive, there may be aspects of acculturation and stressors associated with biculturalism that were not
captured by the instruments used. In addition, even though the AARRSI demonstrated good psychometric properties, it has never been used in the Canadian context. The wording of the measure was carefully altered to tailor it to Asian individuals living in Canada; however, further investigation into the reliability and validity of the measure with this particular population needs to be examined.

For the self-continuity interview portion of the study, the small number of individuals coded as Narrativists was also a limitation of the study. Further analyses with a larger Narrativist sample investigating cultural variables that may distinguish Essentialist from Narrativist is warranted for future research. Importantly, the present findings were correlational in nature and thus, causality cannot be concluded.

The main goal of the study was to demonstrate the interconnectedness of identity, the process of acculturation and cultural values and to provide a broad overview of the complexity of the experiences of Asians living in Canada. These findings have important implications to the development of mental health services for Asian international students and immigrant students in Canada. In particular, the present study suggests the importance of taking into account the experiences of discrimination, cultural conflict and one’s subjective sense of belonging to one’s ethnic group when approaching therapy or developing mental health promotion programs for ethnic minorities. In addition, supporting student groups which provides international and immigrant students to connect with one’s own culture may be beneficial in increasing well-being in this student population.

Because the main goal of the study was to develop a broad conceptual model, there are components of the study deserve more attention and analysis. For instance,
further analysis on the impact of AARRSI on mental health outcomes and identifying moderating variables would be valuable. In addition, future research that have more practical and clinical implications, such as identifying protective factors against cultural conflict and how individuals come to resolve conflicts related to cultural values would be useful. Finally, investigating the associations between V-C and well-being by teasing apart personality variables and other factors would shed light to the components that affect mental health in Asian adults in Canada.
Conclusion

The present study represents a more holistic model of the various aspects of the acculturation process which impacts the experiences of Asians living in Canada. It was suggested that individuals who were in a stage of exploration regarding their ethnic identity were more likely to endorse heritage identification while negatively associating with the mainstream culture. On the other hand, the negative association with the mainstream identification was less predominant in those who had an achieved identity status. Asian immigrants and international students’ psychological adjustment was significantly related to ethnic identity achievement, cultural conflict and vertical collectivism. Finally, it appeared as though Asians may be more likely to prefer a Narrativist strategy than other non-Aboriginal participants; however, this difference was marginal and further data collection is necessary to come to a clear conclusion.

Very limited research is conducted on Asian immigrants and Asian international students living in Canada. Although the United States and Canada have many cultural parallels, it has been suggested that Canada endorses a cultural mosaic model of multiculturalism versus a melting pot system in the United States. Thus, the present study provides a glimpse into the experiences of ethnic minorities, in particular, those from an Asian heritage living in Canada. The current study only scratches the surface on the interaction between many variables that are relevant in these individuals. Therefore, it would be of significant value to study the in-depth processes of how these experiences interact in future research.
References


Appendix

Appendix A: Demographic Questionnaire

Please provide some demographic information about yourself:

1. Your gender: Male / Female / Other (Please circle one)
2. Your date of birth (month/date/year): ________________
3. Your Country of birth: ________________
4. Your first language (first language learned at home in childhood and still understood) ______
5. What is your residency status (ex. Canadian citizen, permanent resident, study permit, temporary resident, work permit) ______________________________
6. How long have you lived in Canada? (months or years): ________________
7. Student status in university: Canadian student / International student (Please circle one)
8. Year of study in university: 1 / 2 / 3 / 4 / 5 / more than 5 (Please circle one)
9. Where were your parents born? (If unsure, write “unknown”)
   9a. Mother’s country of birth: ________________
   9b. Father’s country of birth: ________________
Appendix B: The Horizontal and Vertical Individualism and Collectivism Scale

Use the scale below to indicate how much you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Not sure</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I often do “my own thing” ____
2. One should live one’s life independently of others ____
3. I like my privacy ____
4. I prefer to be direct and forthright when discussing with people ____
5. I am a unique individual ____
6. What happens to me is my own doing ____
7. When I succeed, it is usually because of my abilities ____
8. I enjoy being unique and different from others in many ways ____
9. It annoys me when other people perform better than I do ____
10. Competition is the law of nature ____
11. When another person does better than I do, I get tense and aroused ____
12. Without competition, it is not possible to have a good society ____
13. Winning is everything ____
14. It is important that I do my job better than others ____
15. I enjoy working in situations involving competition with others ____
16. Some people emphasize winning; I’m not one of them ____
17. The well-being of my co-workers is important to me ____
18. If a co-worker gets a prize, I would feel proud ____
19. If a relative were in financial difficulty I would help within my means ____
20. It is important to maintain harmony within my group ____
21. I like sharing little things with my neighbours ____
22. I feel good when I cooperate with others ____
23. My happiness depends very much on the happiness of those around me ____
24. To me, pleasure is spending time with others ____
25. I would sacrifice an activity that I enjoy very much if my family did not approve of it ____
26. I would do what would please my family, even if I detested that activity ____
27. Before taking a major trip, I consult with most members of my family and many friends ____
28. I usually sacrifice my self-interest for the benefit of my group ____
29. Children should be taught to place duty before pleasure ____
30. I hate to disagree with others in my group ____
31. We should keep our aging parents with us at home ____
32. Children should feel honoured if their parents receive a distinguished award ____
Appendix C: Family Allocentrism Scale

Use the numbers below to indicate how much you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Not sure</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
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1. I am very similar to my parents. ____
2. I work hard at school to please my family. ____
3. I follow my feelings even if it makes my parents unhappy. ____
4. I would be honoured by my family’s accomplishments. ____
5. My ability to relate to my family is a sign of my competence as a mature person. ____
6. Once you get married your parents should no longer be involved in major life choices. ____
7. The opinions of my family are important to me. ____
8. Knowing that I need to rely on my family makes me happy. ____
9. I will be responsible for taking care of my aging parents. ____
10. If a family member fails, I feel responsible. ____
11. Even when away from home, I should consider my parents’ values. ____
12. I would feel ashamed if I told my parents “no” when they asked me to do something. ____
13. My happiness depends on the happiness of my family. ____
14. I have certain duties and obligations in my family. ____
15. There are a lot of differences between me and other members of my family. ____
16. I think it is important to get along with my family at all costs. ____
17. I should not say what is on my mind in case it upsets my family. ____
18. My needs are not the same as my family’s. ____
19. After I leave my parents’ house, I am not accountable to them. ____
20. I respect my parents’ wishes even if they are not my own. ____
21. It is important to feel independent of one’s family. ____
Appendix D: Multigroup Ethnic Identity Measure

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Use the numbers below to indicate how much you agree or disagree with each statement.
(1) Strongly disagree (2) Disagree (3) Agree (4) Strongly agree

1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs. ______
2. I am active in organizations or social groups that include mostly members of my own ethnic group. ______
3. I have a clear sense of my ethnic background and what it means for me. ______
4. I think a lot about how my life will be affected by my ethnic group membership. ______
5. I am happy that I am a member of the group I belong to. ______
6. I have a strong sense of belonging to my own ethnic group. ______
7. I understand pretty well what my ethnic group membership means to me. ______
8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. ______
9. I have a lot of pride in my ethnic group. ______
10. I participate in cultural practices of my own group, such as special food, music, or customs. ______
11. I feel a strong attachment towards my own ethnic group. ______
12. I feel good about my cultural or ethnic background. ______
Appendix E: Bicultural Identity Integration Scale

As an individual of Asian descent living in Canada, you have been exposed to two cultures (your heritage culture and Canadian culture) therefore, you could be described as a bicultural or multicultural individual. The experience of being bicultural differs across individuals and we are interested in YOUR particular experience. Now please think for few minutes how much you tend to SEPARATE (vs. COMBINE) these two cultural orientations or identities, and how much CONFLICT (vs. HARMONY) you experience about the norms and values implicit in each culture. Next, read the statements below and rate the extent to which each statement describes your experience in GENERAL. Please rate ALL statements, even if they seem redundant to you.

Use the numbers below to indicate how much you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Not sure</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
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1. I feel (your ethnicity)-Canadian (ex. Chinese-Canadian, Korean-Canadian). ____
2. I am simply an individual of Asian descent who lives in North America (vs. Asian-Canadian). ____
3. I keep my heritage and Canadian cultures separate. ____
4. I feel part of a combined culture. ____
5. I am conflicted between the Canadian and my heritage ways of doing things. ____
6. I don’t feel that my heritage and Canadian identities are quite compatible. ____
7. I feel like someone moving between two cultures. ____
8. I feel caught between my heritage and Canadian cultures. ____

Please rate on a scale of 1 (definitely not true) to 8 (definitely true)

I am a bicultural who keeps Canadian and Asian cultures separate and feels conflicted about these two cultures. I am simply an Asian who lives in Canada (vs. a Asian-Canadian), and I feel as someone who is caught between two cultures. _____
Appendix F: Vancouver Index of Acculturation

Please circle one of the numbers to the right of each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your heritage culture, meaning the original culture of your family (other than Canadian). It may be the culture of your birth, the culture in which you have been raised, or any culture in your family background. If there are several, pick the one that has influenced you most (e.g. Irish, Chinese, Mexican, African). If you do not feel that you have been influenced by any other culture, please name a culture that influenced previous generations of your family. Your heritage culture (other than Canadian) is: __________________________

Disagree

1. I often participate in my heritage cultural traditions. _____
2. I often participate in mainstream Canadian cultural traditions. _____
3. I would be willing to marry a person from my heritage culture. _____
4. I would be willing to marry a white Canadian person. _____
5. I enjoy social activities with people from the same heritage culture as myself. _____
6. I enjoy social activities with typical Canadian people. _____
7. I am comfortable interacting with people of the same heritage culture as myself. _____
8. I am comfortable interacting with typical Canadian people. _____
9. I enjoy entertainment (e.g. movies, music) from my heritage culture. _____
10. I enjoy Canadian/American entertainment (e.g. movies, music). _____
11. I often behave in ways that are typical of my heritage culture. _____
12. I often behave in ways that are typically Canadian. _____
13. It is important for me to maintain or develop the practices of my heritage culture. _____
14. It is important for me to maintain or develop Canadian cultural practices. _____
15. I believe in the values of my heritage culture. _____
16. I believe in mainstream Canadian values. _____
17. I enjoy the jokes and humor of my heritage culture. _____
18. I enjoy white Canadian/American jokes and humor. _____
19. I am interested in having friends from my heritage culture. _____
20. I am interested in having white Canadian friends. _____
Appendix G: Asian American Racism-Related Stress Inventory

Use the scale below to indicate your experience for each of the statements below

1 = this event has never happened to me or someone I know
2 = this event happened but did not bother me
3 = this event happened and I was slightly bothered
4 = this event happened and I was upset
5 = this event happened and I was extremely upset

1. You hear about a racially motivated murder of an Asian Canadian man. _____
2. You hear that Asian Canadians are not significantly represented in management positions. _____
3. You are told that Asians have assertiveness problems. _____
4. You notice that Asian characters in American/Canadian TV shows either speak bad or heavily accented English. _____
5. You notice that in American/Canadian movies, male Asian leading characters never engage in physical contact (kissing, etc.) with leading female characters even when the plot would seem to call for it. _____
6. Someone tells you that the kitchens of Asian families smell and are dirty. _____
7. You notice that U.S./Canadian history books offer no information of the contributions of Asian Americans/Canadians. _____
8. You see a TV commercial in which an Asian character speaks bad English and acts subservient to non-Asian characters. _____
9. You hear about an Asian Canadian government scientist held in solitary confinement for mishandling government documents when his non-Asian coworkers were not punished for the same offence. _____
10. You learn that Asian Canadians historically were targets of racist actions. _____
11. You learn that most non-Asian Canadians are ignorant of the oppression and racial prejudice Asian Canadians have endured in Canada. _____
12. At a restaurant you notice that a White couple who came in after you is served before you. _____
13. You learn that, while immigration quotas on Asian peoples were severely restricted until the later half of the 1900s, quotas for European immigrants were not. _____
14. Someone tells you that it’s the Blacks that are the problem, not the Asians. _____
15. A student you do not know asks you for help in math. _____
16. Someone tells you that they heard that there is a gene that makes Asians smart. _____
17. Someone asks you if you know his or her Asian friend/coworker/classmate. _____
18. Someone assumes that they serve dog meat in Asian restaurants. _____
19. Someone tells you that your Asian female friend looks just like Sandra Oh (or any other well-known Asian American female celebrity). _____
20. Someone you do not know speaks slow and loud at you. ______
21. Someone asks you if all your friends are Asians. ______
22. Someone asks you if you can teach him/her karate. ______
23. Someone tells you that “you people are all the same.” ______
24. Someone tells you that all Asian people look alike. ______
25. Someone tells you that Asian Canadians are not targets of racism. ______
26. Someone you do not know asks you to help him/her fix his/her computer. ______
27. You are told that “you speak English so well.” ______
28. Someone asks you what your real name is. ______
29. You are asked where you are really from. ______
Appendix H: Scale of Psychological Well-Being

Use the numbers below to indicate how much you agree or disagree with each statement.

(4) Strongly agree  (3) Agree   (2) Disagree   (1) Strongly disagree

1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people. ______
2. In general, I feel I am in charge of the situation in which I live. ______
3. I am not interested in activities that will expand my horizons. ______
4. Most people see me as loving and affectionate. ______
5. I live life one day at a time and don’t really think about the future. ______
6. When I look at the story of my life, I am pleased with how things have turned out. ______
7. My decisions are not usually influenced by what everyone else is doing. ______
8. The demands of everyday life often get me down. ______
9. I don’t want to try new ways of doing things – my life is fine the way it is. ______
10. Maintaining close relationships has been difficult and frustrating for me. ______
11. I tend to focus on the present, because the future nearly always brings me problems. ______
12. In general, I feel confident and positive about myself. ______
13. I tend to worry about what other people think of me. ______
14. I do not fit very well with the people and the community around me. ______
15. I think it is important to have new experiences that challenge how you think about yourself and the world. ______
16. I often feel lonely because I have few close friends with whom to share my concerns. ______
17. My daily activities often seem trivial and unimportant to me. ______
18. I feel like many of the people I know have gotten more out of life than I have. ______
19. Being happy with myself is more important to me than having others approve of me. ______
20. I am quite good at managing the many responsibilities of my daily life. ______
21. When I think about it, I haven’t really improved much as a person over the years. ______
22. I enjoy personal and mutual conversations with family members or friends. ______
23. I don’t have a good sense of what it is I’m trying to accomplish in life. ______
24. I like most aspects of my personality. ______
25. I tend to be influenced by people with strong opinions. ______
26. I often feel overwhelmed by my responsibilities. ______
27. I have the sense that I have developed as a person over time. ______
28. I don’t have many people who want to listen when I need to talk. _____
29. I used to set goals for myself, but that now seems like a waste of time. _____
30. I made some mistakes in the past, but I feel that all in all everything has worked out for the best. _____
31. I have confidence in my opinions, even if they are contrary to the general consensus. _____
32. I generally do a good job of taking care of my personal finances and affairs. _____
33. I do not enjoy being in new situations that require me to change my old familiar ways of doing things. _____
34. It seems to me that most other people have more friends than I do. _____
35. I enjoy making plans for the future and working to make them a reality. _____
36. In many ways, I feel disappointed about my achievements in life. _____
37. It’s difficult for me to voice my own opinions on controversial matters. _____
38. I am good at juggling my time so that I can fit everything in that needs to get done. _____
39. For me, life has been a continuous process of learning, changing, and growth. _____
40. People would describe me as a giving person, willing to share my time with others. _____
41. I am an active person in carrying out the plans I set for myself. _____
42. My attitude about myself is probably not as positive as most people feel about themselves. _____
43. I often change my mind about decisions if my friends or family disagree. _____
44. I have difficulty arranging my life in a way that is satisfying to me. _____
45. I gave up trying to make big improvements or changes in my life a long time ago. _____
46. I have not experienced many warm and trusting relationships with others. _____
47. Some people wander aimlessly through life, but I am not one of them. _____
48. The past had its ups and downs, but in general, I wouldn’t want to change it. _____
49. I judge myself by what I think is important, not by the values of what others think is important. _____
50. I have been able to build a home and a lifestyle for myself that is much to my liking. _____
51. There is truth to the saying you can’t teach an old dog new tricks. _____
52. I know that I can trust my friends, and they know they can trust me. _____
53. I sometimes feel as if I’ve done all there is to do in life. _____
54. When I compare myself to my friends and acquaintances, it makes me feel good about who I am. _____
Appendix I: Center for Epidemiological Studies Depression Scale

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

1 = Rarely or none of the time (less than 1 day)
2 = Some or a little of time (1-2 days)
3 = Occasionally or a moderate amount of time (3-4 days)
4 = Most or all of the time (5-7 days)

1. I was bothered by things that usually don’t bother me. ____
2. I did not feel like eating; my appetite was poor. ____
3. I felt that I could not shake off the blues even with help from my family or friends. ____
4. I felt I was just as good as other people. ____
5. I had trouble keeping my mind on what I was doing. ____
6. I felt depressed. ____
7. I felt that everything I did was an effort. ____
8. I felt hopeful about the future. ____
9. I thought my life had been a failure. ____
10. I felt fearful. ____
11. My sleep was restless. ____
12. I was happy. ____
13. I talked less than usual. ____
14. I felt lonely. ____
15. People were unfriendly. ____
16. I enjoyed life. ____
17. I had crying spells. ____
18. I felt sad. ____
19. I felt that people dislike me. ____
20. I could not get “going.” ____
Appendix J: Self-Continuity Interview Questions

Section 1 - Jean Valjean/Monsieur Madeleine

1) To start off, please describe the main story character – Jean Valjean – at the beginning of the story. Describe him the way you would to someone who hasn’t heard the story.

2) Now skip over everything that happened in the story, and please describe Monsier Madeleine at the end of the story. Describe him the way you would to someone who hasn’t heard the story.

3) Often as people go through changes much like Jean Valjean did before he became Monsier Madeleine, they can be described quite differently before as opposed to after these changes. Despite these changes is Jean Valjean really Monsier Madeleine? Their names are different, but is there a sense that they are both the same person? Why do you think this is the case? Explain.

4) Given all of these important changes how is it that you think Jean Valjean and Monsier Madeleine are the same person? What specifically do you think it is that makes him the same person through the whole story? Explain.

5) Does Valjean himself think he is still the same person throughout the story? For example, when he remembers the person he was at the beginning does he feel that all the things that happened in the story actually happened to the same person he had become in the end? Why do you think this is the case? Explain.

6) If Jean Valjean himself was describing the story, how would he explain to someone else that one and the same person could act in all of the different ways he acted throughout the story? Explain.

7) Now assume you are the author of this story, and you had to write the next chapter. How would the story go from here?

Section 2 – Personal Changes

1) First take a minute to think back to a memory of yourself from 5 years ago. After you have done that, please describe the sort of person you were five years ago. Describe yourself as you would to someone who does not know you, but would like to get the know you.

2) Now take a minute to think about how different you are now from the person you described 5 years ago. After you have done that please describe the sort of person you are now. Describe yourself as you would to someone who does not know you, but would like to get the know you.
3) Now take a minute to look at the two descriptions you gave about yourself. Do you feel, based on the two descriptions you have given that you have changed in some important ways? Explain. Is there any more important personal changes that may have taken place in the last 5 years of your life? If you haven’t already described this, is there anyway in which your attitudes and beliefs have changed in the last 5 years? Explain.

4) Take a moment to think about all the changes you have just described. As in the previous stories to someone other than yourself, it could seem like you are describing two different people. Obviously, however the descriptions you have given are about one person. Take a minute to think for a while and then explain in as much detail as possible why you think of yourself now as the same person you were five years ago, throughout all these changes.

5) Now, how would you explain all the changes that have taken place in your life? For example, how is it that you have become the person you are right now?

6) Sometimes people change because something happens to them which causes them to change and sometimes people change because they make a choice to take a different path in their life and that’s a conscious choice. So which one of those would represent the changes that come about in your life? Why do you think that this is the case? Explain.