

**Investigating Discrimination as a Predictor of the Alternating Identity Style and its  
Outcomes: An Experimental Study**

By

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To Gargie, Papa, and Grandpa Mike – much love, and God bless.

### **Abstract**

Cultural identity styles refer to the strategies bicultural individuals use to negotiate cultural identity-relevant issues. The alternating identity style (AIS) involves shifting cultural identities depending on context and is known to be predicted by exposure to negative socio-political factors, including discrimination. In turn, the AIS has been linked to greater cultural identity conflict, leading to poorer psychological wellbeing; however, these associations have only been examined in cross-sectional, correlational research. The current study used an experimental design to investigate whether being exposed to discriminatory comments (experimental condition) increases the use of AIS, cultural identity conflict (CIC), and psychological symptoms and decreases life satisfaction, in comparison to being exposed to neutral comments (control condition) and if the effects of discrimination on well-being are mediated, in turn, by the AIS and CIC. Chinese American participants ( $N = 191$ ) viewed a fictitious Facebook post depicting a US naturalization ceremony, along with one of two different sets of comments – discriminatory or neutral. They then completed a survey including manipulation checks, measures of AIS, CIC, psychological symptoms, and life satisfaction. Participants viewed the discriminatory and neutral comments as significantly different from each other, suggesting the experimental manipulation was successful. There were no significant differences in the AIS and life satisfaction between the two conditions, but those in the discrimination condition reported significantly more psychological symptoms and marginally higher levels of CIC. Path analysis revealed that discrimination predicted greater CIC, which mediated the effects of both discrimination and the AIS on well-being outcomes. While the experimental manipulation was effective, the results highlight difficulties in capturing the use of the AIS in the here and now and suggest directions for future studies.

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## **Investigating Discrimination as a Predictor of the Alternating Identity Style and its Outcomes: An Experimental Study**

Through a combination of varying forces, such as globalisation and technological advances, our worlds have become much smaller, resulting in increases in immigration and countries becoming much more diverse. With 281 million migrants, or 3.6% of the world's population, spread across the globe (International Organization for Migration, n.d.), direct intercultural contact between different cultures has reached unprecedented heights. Additionally, indirect contact between cultures has also increased through avenues such as the internet (Marcoccia, 2012), allowing people to communicate with each other from across countries. With these trends in mind, it is vital to understand the effects this intercultural contact has on migrant populations. One such line of research interested in this interaction between cultures and its outcomes is that of acculturation.

### **Acculturation**

An early definition of acculturation used in previous research was suggested by Redfield et al. (1936), describing it as a collection of “phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups” (p.149), although contact no longer must be first-hand to result in acculturation taking place (Ferguson & Bornstein, 2012; Hofhuis et al., 2019). Graves (1967) expanded upon this definition by proposing a difference between social and psychological acculturation – social acculturation referring to changes at the group level, versus psychological acculturation referring to changes at the individual level.

Berry (1974) was one of the pioneers in observing the individual changes people going through the acculturation process. He noted that minority-culture individuals living in

majority-based societies were faced with multiple issues to resolve: whether or not to maintain their heritage culture and to engage with the majority culture surrounding them. These issues are termed (heritage) cultural maintenance, and (majority) cultural participation. Depending on the level of cultural maintenance and cultural participation, Berry (1997) derived four acculturation strategies. These strategies are separation, assimilation, marginalization, and integration. Separation strategies involve maintaining heritage cultural affiliations while at the same time minimizing contact with the majority culture. Assimilation strategies involve acculturating individuals interacting with the majority culture while deciding to not maintain their heritage culture. Marginalization strategies are used when acculturating individuals neither maintain their heritage culture, nor participate in the majority culture around them. Finally, integration, or biculturalism as it is referred to in other research (Benet-Martínez & Haritatos, 2005), ensues when an acculturating individual wishes to both maintain their cultural heritage and participate in the wider dominant culture.

The integration strategy/biculturalism has been identified as the most preferred strategy among acculturating groups (Berry et al., 2006; Berry & Sabatier, 2011). It has also been linked to a myriad of positive benefits, including greater psychological adjustment and wellbeing, lower levels of anxiety and loneliness (Phinney et al., 2001, Berry et al., 2006), better creative performance (Cheng et al., 2008), higher levels of intercultural competence, psychological and sociocultural adaptation, and larger support networks across different cultural groups (Benet-Martínez et al., 2006; Berry & Sabatier, 2011; Bierwiazzonek & Kunst, 2021; Nguyen & Benet-Martínez, 2013).

A large portion of research on acculturation orientations has been dedicated to the integration strategy/biculturalism, in particular, looking at how bicultural individuals (hereafter referred to as biculturals) who use this strategy manage their relationships to both their heritage culture and the majority culture. Integration may occur in multiple domains,



whether it be through attitudes, behaviours, values, and cultural identities (Berry 2003; Berry, 2009; Schwartz et al., 2010). The focus of the present research is on cultural identity integration: specifically, to analyse how biculturals attempt to manage and balance their multiple cultural identities to achieve integration by alternating between heritage and majority identities, and how this process is affected by discrimination.

In the following sections, I will first provide an overview of bicultural identity integration/biculturalism by discussing research describing the characteristics and types of integrated identities. Moving on to the processes involved in bicultural identity integration, I will introduce theory and research on cultural identity styles, focusing particularly on the alternating identity style (AIS) and its contextual antecedents. Particular attention will be directed to the impact of discrimination on cultural identity integration. Finally, I will highlight the need for an experimental study on this topic, along with a description of the cultural context in which this research will take place.

### **Bicultural Identity Integration/Biculturalism**

Much of previous research has been devoted to understanding the characteristics that define an integrated bicultural identity, such as the work by Benet-Martínez and colleagues on bicultural identity integration (BII). BII is defined as the way “biculturals perceive their mainstream and ethnic cultural identities as compatible and integrated versus oppositional and difficult to integrate” (Benet-Martínez et al., 2002, p. 496). Studies have identified two independent components of BII: cultural harmony (versus conflict) and cultural blendedness (versus distance). Cultural harmony (versus conflict) captures the degree of harmony versus tension between two cultural orientations, reflecting an *affective* element of an integrated identity. Cultural blendedness (versus distance) captures the degree of overlap or compartmentalization between the two cultural orientations, reflecting a *cognitive* element of

an integrated identity (Benet-Martínez, 2018). Individuals who rate themselves high on cultural blendedness and see their multiple cultural identities as harmonious are considered to be high in BII. On the other hand, individuals low in BII may see their identities as conflicted and fragmented.

Work on BII has noted that while both the harmony and blendedness dimensions are important for integration, they are mostly independent from each other (Huynh et al., 2018). Additionally, each of these dimensions was found to have differing antecedents: harmony is negatively predicted by contextual stressors such as discrimination, along with personality elements such as neuroticism, while blendedness is predicted by acculturation factors such as an individual's orientation to both heritage and majority cultures (Benet-Martínez & Haritatos, 2005; Huynh et al., 2018). Similarly, the two dimensions are differentially related to well-being outcomes, as only harmony is predictive of greater wellbeing and lower psychological distress (Benet-Martínez & Haritatos, 2005; Huynh et al., 2018).

Work by Yampolsky et al. (2016) has explored differing ways biculturals may configure their multiple cultural identities. Using the Multicultural Identity Integration Scale, the researchers identified differing patterns of identity configurations: categorized, compartmentalized, and integrated. Categorization involves prioritizing a single cultural identity to the relative exclusion of others. Compartmentalizing arises from the separation of context-bound cultural identities, which are often seen as conflicting. Integration emerges through connecting and reconciling differing identities and utilising them simultaneously. Like BII and its dimensions mentioned before, different identity configurations predicted differing outcomes. Individuals who hold compartmentalized identities report poorer wellbeing and lower levels of positive outcomes like personal growth. On the other hand, individuals who hold integrated identities have more positive psychological outcomes, including greater subjective wellbeing.

While BII and identity configurations reflect the characteristics of integrated bicultural identities, there is also work about how these identities come together and result in different *types* of biculturalism. Cross-cutting psychological and linguistic research, LaFromboise et al. (1993) proposed five models of biculturalism: assimilation, acculturation, alternation, fusion and multicultural models. The assimilation, acculturation, and multicultural models bear similarities to Berry's (1997) acculturation strategies of assimilation, separation, and integration, respectively: the assimilation model reflects individuals becoming absorbed into the majority culture and losing identification with their ethnic culture; the acculturation model reflects individuals rejecting the majority culture and staying within their ethnic culture; and the multicultural model reflects individuals maintaining positive identities as members of both ethnic and majority cultures. The alternation and fusion models are similar to the multicultural one, as both reflect maintaining positive relationships to heritage and majority cultures; however, the alternation model suggests that individuals may switch their cultural identities depending on context, assigning each culture equal importance, regardless of which they preferred, whereas the fusion model suggests that these cultural identities may combine into a new cultural identity.

This was followed by Birman (1994), who discussed three potential types of biculturalism: blended biculturalism, where individuals highly identify with and participate in both heritage and majority cultures; integrated biculturalism, where individuals participate in both cultures, but only hold a single ethnic identity; and instrumental biculturalism, where individuals participate in both cultures, but this participation does not extend to their identity. Phinney and Devich-Navarro (1997) were among the first to empirically investigate different types of bicultural identity and identified three identification patterns in Mexican- and African-American participants: separated adolescents, who distanced themselves from the majority culture, blended biculturals, who combined elements of ethnic and national cultures,

and alternating biculturals, where participants saw themselves as more ethnic or American depending on the circumstances.

While the aforementioned studies give us a perspective of both the characteristics of an integrated identity through BII and identity configurations, and the different ways these identities take shape through the proposed models of LaFromboise et al. (1993) and Birman (1994), or the findings of Phinney and Devich-Navarro (1997), they do not explain *how* biculturals come to achieve integration. An emerging line of research on cultural identity styles provides a theoretical framework for investigating the processes and strategies people with multiple cultural identities use when negotiating and balancing their identities

### **Cultural Identity Styles**

Current research on cultural identity styles is grounded in earlier qualitative work by Stuart and Ward (2011) who examined the acculturation experiences of young Muslim immigrants in New Zealand. In this research, Muslim youth spoke extensively about “balance”; that is, achieving success by managing multiple and potentially competing demands from family, friends, or wider society. Elements of balance were noted to share similarities with the integration strategy, with both being concerned with the processes of managing one’s relationships to multiple cultures. For example, one participant suggested a way of attaining success was through “Achieving a good balance, being a Muslim and being a member of a non-Muslim society and not compromising on faith, but still being able to be comfortable” (Stuart & Ward, 2011, p. 259).

When asked how they balanced and integrated their multiple cultural orientations, participants described two strategies: alternating and blending. The alternating strategy was described by participants as switching between separate cultural identities depending on the cultural context. For instance, one participant specifically mentioned switching identities

between home and at school: “There are definitely different ways that I act with some people than with others. Especially the difference between the way I would act with a New Zealander and how I would act with my family” (Stuart & Ward, 2011, p. 260). The use of this strategy indicates participants were able to identify the cultural expectations placed on them in differing cultural contexts, in turn, creating separate cultural repertoires that could be switched between to better fit in in those contexts.

On the other hand, the blending strategy was described as picking and choosing desirable elements of both cultures. One participant suggested the following: “I went from a pure Iraqi lifestyle to a hybrid New Zealand/Iraqi Muslim lifestyle...For example for me, I don’t drink and I don’t want to go towards that path. So in that sense you have an advantage of choosing the best qualities of the culture, so that’s good” (Stuart & Ward, 2011, p. 261). Like those who used alternating strategies, participants who utilised the blending strategy indicated they were also able to identify differing cultural expectations of different contexts. Rather than keeping cultural elements separate, however, participants indicated they preferred selecting desirable elements of both cultures, resulting in the creation of a new, hybrid cultural identity.

While the notions of blending and alternating described by Stuart and Ward (2011) were not new, Ward et al. (2018) set them in a conceptual framework and developed a measurement scale to capture these processes. Based on theory and research on personal identity development by Berzonsky (1989) who described identity styles as the strategies individuals use when making decisions about identity-relevant issues during normative, age-related identity development, Ward et al. (2018) introduced the construct of cultural identity styles as dynamic strategies individuals use to construct and maintain multiple cultural identities with the goal of achieving integration. Identity styles reflect dynamic processes that individuals may use in their day-to-day life. Which style individuals use in a given moment

can not only be affected by individual characteristics, such as personality and self-views, but also contextual demands, such as cultural expectations (Berzonsky, 1992). In addition, differing identity styles have been identified as predicting differing identity outcomes, such as identity commitment, which may in turn influence an individual's wellbeing (Berzonsky, 2003).

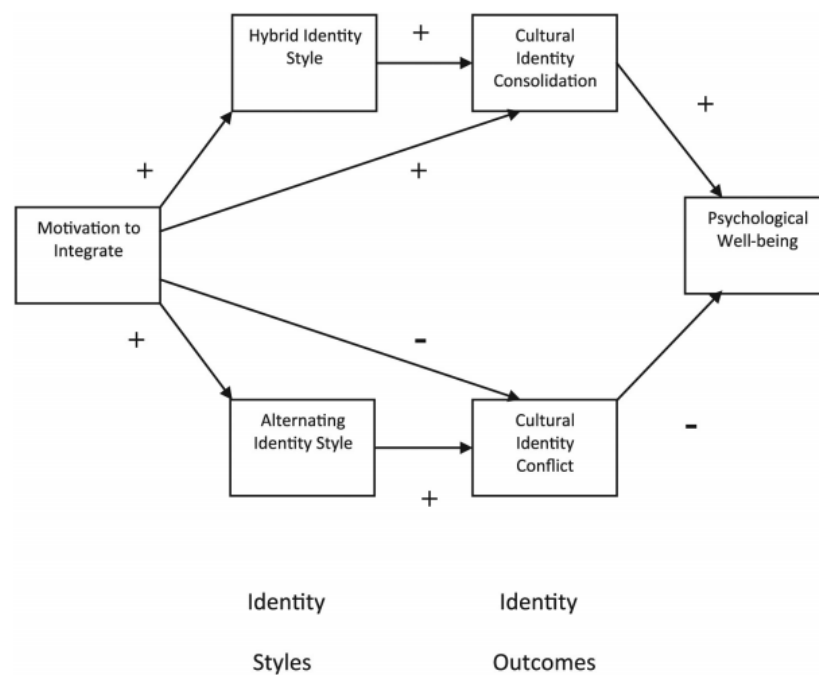
Ward et al. (2018) specified two cultural identity styles: alternating and hybridising. The alternating identity style (AIS) reflects the shifting of cultural identities depending on context. Blending became the hybrid identity style (HIS), which involves selecting desirable elements from both the heritage and majority culture and blending them in a novel way; it also reflects a degree of flexibility on the part of the hybridising individual. These styles are measured by the Multicultural Identity Styles Scale (MISS), which was constructed and validated cross-culturally with diverse bicultural ethnic and immigrant groups.

### **Antecedents and Outcomes of Cultural Identity Styles**

Working with diverse samples across multiple countries including New Zealand, Mauritius, and Israel, Ward et al. (2018) identified key antecedents and outcomes of these cultural identity styles. Although both the HIS and AIS were predicted by a motivation to integrate, they were related to different identity outcomes: The HIS predicted greater cultural identity consolidation (i.e., a stable hyphenated cultural identity, generating feelings of pride and belongingness), whereas the AIS predicted greater cultural identity conflict (i.e., beliefs that elements of the different cultural identities are in conflict, leading to feelings of confusion). These identity outcomes, in turn, predicted different psychological wellbeing outcomes: cultural identity consolidation was predictive of greater psychological wellbeing, whereas cultural identity conflict (CIC) was predictive of poorer psychological wellbeing. The full model can be seen in figure 1.

**Figure 1**

*Core Mediation Model proposed by Ward et al. (2018)*



Aside from the motivation to integrate, other antecedents have been identified as predictors of cultural identity styles. Among these are personal characteristics, such as intercultural effectiveness, which acts as a positive predictor of the HIS and a negative predictor of the AIS (Szabó & Ward, 2020). Familial conflict has been shown to predict increments in alternating but not hybridizing (Qumseya, 2018). Additionally, socio-political contexts have differing effects on the use of each style. Ye and Butchel (2021) found that perceived assimilation into Greater China decreased the use of both the HIS and AIS in Hong Kong students, while perceptions that multiculturalism was beneficial to Greater China increased their use. Similarly, in a recent study by Ng Tseung-Wong et al. (2022) perceived assimilation and multiculturalism were associated with greater HIS and AIS in non-British Australians but only greater AIS in British Australians. Finally, Qumseya (2018), working with Muslim youth in New Zealand, found that perceived discrimination increased one's tendency to alternate identities across situations, but it did not influence hybridising. Overall,

studies to date suggest that AIS is more strongly and consistently impacted by contextual factors, including perceived discrimination.

### **Discrimination and Cultural Identity Negotiation**

The detrimental impact of discrimination on psychological outcomes is well documented in the literature. Meta-analyses across different cultures and settings have shown discrimination to predict poorer psychological wellbeing, such as greater levels of depressive symptoms, psychological symptoms, and lower levels of life satisfaction (Carter et al., 2017; de Freitas et al., 2018; Triana et al., 2015; Lee & Ahn, 2011). With respect to cultural identity outcomes, research findings are less conclusive. While some studies have linked discrimination to lower levels of cultural harmony (Benet-Martínez & Haritatos, 2005; Huynh et al., 2018), greater identity conflict (Leong & Ward, 2000; Ward et al., 2011) and reduced ethno-cultural identification (Ellemers et al., 2002; McCoy & Major, 2003), others have found evidence for increased attachment and identification with one's ethnic and cultural groups after experiencing discrimination (Barlow et al., 2012; Branscombe et al., 1999; Garstka et al., 2004). These findings suggest that discrimination can both strengthen and weaken cultural identity outcomes, but it is unclear to what extent it impacts how biculturals manage their cultural identities in their day to day lives. As the AIS is more susceptible to situational influences in general and as discrimination specifically has been found to predict AIS, but not HIS, the present study will focus on discrimination and its relationship to use of the AIS.

### **The Need for Experimental Studies**

While the previous cross-sectional survey studies on the AIS have been vital to establish its relationships with various antecedents and outcomes, they do not allow us to imply causality in any of these relationships. Therefore, there is a need for experimental



studies on this topic - indeed, Ward et al. (2018) called for this after the development of the MISS (p. 1432). Through the manipulation of key variables, experimental methods allow us to determine whether changes in one variable cause changes in another (Kirk, 2012).

Presently, only one other study has looked at the AIS using an experimental design by focusing on the effects of perceived socio-political contexts on its use (Ye & Buchtel, 2021); however, no studies have examined whether exposure to discrimination causes a change in the use of the AIS.

It may be useful to illustrate just how dynamic the use of identity styles can be depending on contextual cues as a rationale for trying to experimentally increase the use of the AIS. Work by Doucerain et al. (2013) with migrant populations in Canada found that participants reported on average having five different cultural identities. Among these were “heritage” (i.e., Chinese) and “mainstream” (i.e., English-Canadian) identities, along with “hybrid” identities (i.e., Chinese-Canadian). Participants on average reported using three of these identities during their day and switched between these identities around four times a day depending on the cultural contexts they found themselves in. These findings suggest that shifting or alternating cultural identities is a dynamic strategy, responsive to everyday cultural contexts and cues.

In the present study, I intend to increase the use of the AIS by exposing participants to fictitious discriminatory Facebook comments versus neutral comments. I expect those who are exposed to the discriminatory material will report higher usage of the AIS, in comparison to those who view neutral comments. Finding significant results would imply causality in the relationship between discrimination and use of the AIS.

## **Context of the Current Research**

The current research will draw on a Chinese American sample. Chinese migrants have been arriving in the US since the 19<sup>th</sup> century during the California Goldrush and subsequently provided cheap manual labour, such as on the First Transcontinental Railway in the 1860s. Two more waves of migrants followed: the second in the late 1940s, and the third in the 1980s to present. Since then, Chinese Americans make up around 24% of the Asian American population in the US (Budiman & Ruiz, 2021). In turn, Asian Americans make up the fourth largest ethnic group in the country behind White, Hispanic/Latino, and Black/African American populations, (Jin et al., 2021).

The US has a complicated history in its relationships with both China and subsequently Chinese immigrants. Historically, this includes the Chinese Exclusion Act in 1882 following an economic recession and Anti-China sentiment. The Act banned Chinese labourers from entering the country and barred migrants already in the US from becoming citizens. More modern examples include concepts of “the model minority” that have been forced on Chinese Americans since the 1960s (Wong & Halgin, 2006), or the rise in anti-Asian rhetoric due to the cooling relationship between the US and China over issues such as Hong Kong, Taiwan, and perhaps most notably, the COVID-19 pandemic. The last of these has been notably accompanied by increases in xenophobia and racism towards Chinese living in the US (Human Rights Watch, 2020), which was stoked by the anti-Asian rhetoric of the then-president, Donald Trump. These historical and modern-day contexts Chinese Americans must navigate while managing their cultural identities provides an interesting basis for research.

## The Aim of the Current Research and Hypotheses

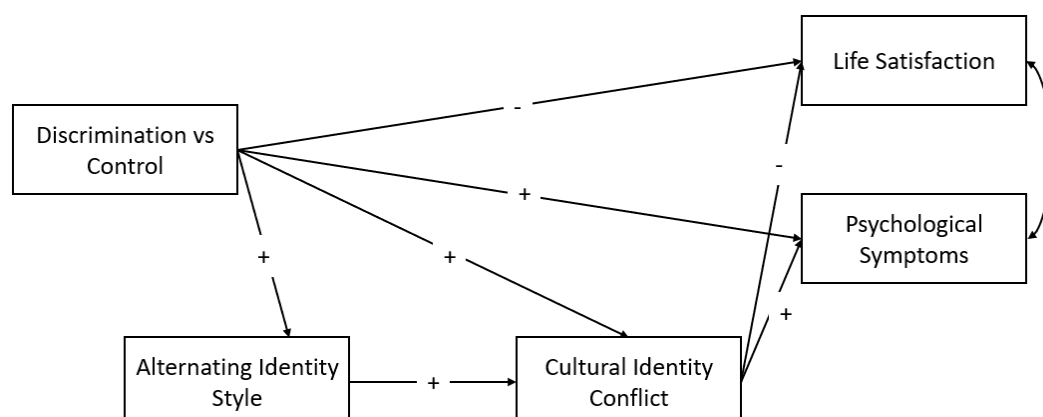
To advance theory and research on cultural identity styles I adopt an experimental design manipulating discriminatory versus neutral messages and having Chinese Americans complete measures of AIS, CIC, psychological symptoms, and life satisfaction. The objectives of the study are: 1) to determine whether discrimination causes a change in the use of the AIS and affects CIC, and psychological wellbeing; and 2) to replicate Ward et al.'s (2018) mediational model demonstrating that the AIS leads to greater CIC and, in turn, to lower levels of psychological wellbeing.

### Hypotheses:

- 1) Those in the discrimination condition will report a) greater use of the AIS, b) more CIC, and c) lower levels of psychological wellbeing compared to a control.
- 2) Discrimination, in comparison to control, will predict greater use of the AIS, which in turn will be associated with greater CIC, leading onto lower psychological wellbeing. The relationship between discrimination and psychological wellbeing (i.e., low life satisfaction and high psychological symptoms) will be partially mediated by AIS and in turn, CIC. The proposed path model is shown in figure 2.

**Figure 2**

*Proposed Mediational Model for Hypothesis 2*



## Method

### Participants

207 participants completed the survey. However, sixteen were removed because they did not meet the inclusion criteria described below. The final analytic sample contained 191 Chinese Americans (59% female, 61% American-born) participated in the study with a mean age of  $M = 48.59$  ( $SD = 19.99$ ) in a range of 18 to 92 years. For participants born overseas, the average length of residence was  $M = 29.82$  years ( $SD = 15.70$ ). The average self-reported English proficiency was  $M = 4.21$  ( $SD = .97$ ) on a 5-point scale, with 1 = *Poor* and 5 = *Native Speaker*, whereas the average Chinese proficiency was  $M = 2.36$  ( $SD = 1.40$ ) on the same scale. Overall, the sample was well educated, with 55.5% having at least a bachelor's degree.

### Procedure

Participants were recruited through Qualtrics, an online survey tool, through their traditional, actively managed, double opt-in market research panels. Panel members who met the inclusion criteria of being Chinese American and over 18 were given an invitation to participate in the study, along with being offered a “reward” upon completion, e.g., points that can be redeemed for a single reward from Qualtrics. Upon accepting the invitation to participate, participants were presented an anonymous link to the survey, which was prefaced with a participant information sheet and followed by a debriefing statement (see Appendix A).

The survey was presented as a study looking at personal experiences of Chinese Americans on social media. Once participants had given their consent to participate in the study, they provided demographic information to ensure they met the age and ethnicity inclusion criteria and answered two further screening questions: “To what extent do you feel Chinese”, and “to what extent do you feel American”, both rated on a 5-point scale anchored

at 1 = not at all and 5 = very much. If participants did not meet the demographic criteria or responded “not at all” to either of these questions, they were excluded from the study. After this, participants were randomly assigned to one of two experimental conditions (discrimination or control), as described below (see Appendix B for materials). Participants were then presented open-ended engagement questions to make them think more about their assigned condition and manipulation checks (also Appendix B). Upon completing the survey, participants were debriefed as to the true purpose of the study and thanked for their time.

Considering the nature of the experimental manipulation, I suggested to participants if they felt upset, they could discuss any feelings with friends and family if they felt the need. I also provided contact details to Samaritans USA and Crisis Text Line. The study took roughly 20 minutes. This research was approved by Victoria University of Wellington’s Human Ethics Committee [0000029117]. The current study was preregistered as part of a larger experiment which included a condition on inclusion and relationships with the HIS ([osf.io/nhs8b](https://osf.io/nhs8b)). However, this thesis only focuses on the AIS.

Participants were excluded from my analyses for several reasons: if they failed one of our two attention checks; if they completed the study in under 5 minutes; if they took over an hour; and if they gave repetitive answers to questions, i.e., answering 1 on a 5-point response scale to 15 questions in a row on a single measure. These suggested that participants were not significantly engaging with the survey materials.

To evaluate the validity of the experimental procedures, data collection was paused after collecting 90 responses, and manipulation checks were carried out. Data collection was resumed after 9 days with no changes to the research materials.

## Design

Participants were randomly assigned to the experimental or control condition where they were either exposed to fictitious discriminatory or neutral comments regarding an image on a Facebook post showing a US naturalization ceremony with Asians as the focus. The experimental condition contained comments such as “I’ll only accept these people if they act like true Americans. Speak properly, don’t be arrogant and respect our values!! Otherwise you’re not welcome!” For the control condition, comments were neutral, such as comments like “Good photo. Just a question to the photographer - what kind of equipment do you use? I’d love to find something that takes photos as professionally as this.” Full experimental materials can be found in figures 5, 6 and 7, Appendix B.

After looking at the image and comments, participants were presented with manipulation check questions to make sure the two conditions were seen as significantly different. This was done through two questions: “How positive or negative do you feel the comments on the post are?” and “How discriminatory towards Chinese Americans do you feel the comments are?” These questions were measured with two separate 5-point response scales, the first with 1 = *Extremely positive* and 5 = *Extremely negative*, and the second with 1 = *not at all* and 5 = *highly discriminatory* (Appendix B).

## Measures

Aside from demographic information, the survey measured: AIS; CIC; and positive and negative indicators of psychological wellbeing (i.e., life satisfaction, psychological symptoms). For the AIS and CIC scales, participants were first cued with the prompt, “We would now like you to fill out some survey items relating to your cultural identity. These items will look at how you relate to Chinese and American cultures.” For the psychological wellbeing materials, participants were prompted with the statement, “This is the last set of

surveys. The following items relate to your personal wellbeing. Please follow the instructions relating to each scale.”

### ***Demographic Information***

Demographic information collected included gender, age, country of birth, length of residence if not born in the US, location of parent’s birth, language proficiency (English and Chinese), and level of education.

### ***Alternating Identity Style***

Use of the AIS was measured using items from the Multicultural Identity Styles Scale (MISS) developed by Ward et al. (2018). Seven of the 14 items on the scale measure the alternating identity subscale, e.g., “I have a Chinese private self and an American public self.” Participants rated their disagreement/agreement with these items on a 5-point response scale, with 1 = *strongly disagree* and 5 = *strongly agree*. Higher scores on this subscale indicate greater use of the AIS. The reliability for the AIS was deemed to be good; Cronbach’s  $\alpha = .82$ .

### ***Cultural Identity Conflict***

CIC was measured with the short form of the Ethnocultural Identity Conflict Scale (Szabó & Ward, 2021; Ward et al., 2011). The scale is unidimensional and contains 6 items assessing identity conflict in migrants and ethno-cultural minorities regarding their cultural and ethnic backgrounds, e.g., “Because of my cultural heritage, I sometimes wonder who I really am.” Participants rated their disagreement/agreement to these statements on a 5-point response scale, with 1 = *strongly disagree* and 5 = *strongly agree*. Higher scores indicate greater CIC. The reliability for the scale was deemed to be good; Cronbach’s  $\alpha = .86$ .

### ***Life Satisfaction***

Life satisfaction was measured using Diener et al.'s (1985) Satisfaction with Life Scale. The scale includes 5 items, e.g., "In most ways my life is close to my ideal." Participants were asked "How do the following [items] apply to how you think about yourself and your life?" and rated their disagreement/agreement on a 5-point response scale with 1 = *strongly disagree* and 5 = *strongly agree*. Higher scores indicate greater life satisfaction. The reliability for the scale was deemed to be excellent; Cronbach's  $\alpha = .90$ .

### ***Psychological Symptoms***

Psychological symptoms were measured by Berry et al.'s (2006) Psychological Symptoms Scale. The scale contains 15 items measuring the frequency of symptoms, e.g., "I feel restless" and "I feel weak all over." Participants were asked "How often do you experience the following?" and rated the frequency on a 5-point response scale with 1 = *never* to 5 = *very often*. Higher scores indicate more frequent experiences of psychological symptoms. Reliability for the scale was deemed to be excellent; Cronbach's  $\alpha = .94$ .

## **Results**

After data imputation for missing variables, analyses were conducted in two stages: 1) preliminary analyses: psychometric analyses of the measurement scales (*M*, *SD*, Cronbach's alpha); manipulation checks (independent *t*-tests), and bivariate correlations and 2) hypothesis testing for experimental effects (independent *t*-tests) and the mediational model. Independent samples *t*-tests were performed using IBM SPSS Statistics (version 27). Mediation analyses were performed using IBM SPSS AMOS (Version 27).

To determine whether the mediational model adequately represented the data, several fit indices were applied. These were the chi-square/degree of freedom ratio, the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), the Root Mean Square Error of



Approximation (RMSEA) with its confidence interval, and the Standardised Root-Mean-Square Residual (SRMR) (Hu & Bentler, 1999; Hooper et al., 2007). A chi-square/degree of freedom ratio below 2.0, a CFI and TLI value higher than .95, RMSEA lower than .06, and SRMR lower than .08 indicate good fit. Alternatively, a chi-square/df ratio of less than or equal to 5.0 (Schumacker & Lomax, 2004), a CFI or TLI value higher than .90 and RMSEA below .08 indicate acceptable fit (Hu & Bentler, 1999; Hooper et al., 2007). Modification indices were used where appropriate to improve model fit (MacCallum, 1995).

## **Preliminary Analyses**

### ***Data Imputation***

The final sample included 191 participants. Missing items were examined using Little's Missing Completely at Random (MCAR) test to see whether imputation could be used. Little's MCAR was not significant ( $\chi^2 = 186.76$ ,  $df = 224$ ,  $p = .98$ ), indicating that data were missing completely at random. A total of 6.1% was missing across the dataset, with the highest percentage of missing data per item being 1.0% for 3 items. Due to the small amount of missingness, I decided to use mean imputation to replace missing variables per item by the mean of non-missing cases of that item.

### ***Psychometric Analyses***

The psychometric properties of the measurement scales are reported in Table 1. All measures demonstrated a high level of reliability with Cronbach's alphas exceeding .80.

### ***Manipulation Checks***

First, we conducted preliminary analyses to determine whether participants perceived the conditions as significantly different from each other. Independent sample t-tests indicated that participants in the discrimination condition saw their comments as more negative ( $M_d =$

4.24;  $SD = 1.05$ ) than those in the control condition ( $M_c = 2.78$ ;  $SD = .86$ ),  $t(181) = 10.43$ ,  $p < .001$ ,  $d = 1.52$ . Levene's test indicated unequal variances ( $F = 8.39$ ,  $p = .004$ ), so degrees of freedom were adjusted from 189 to 181. Participants in the discrimination condition also perceived the comments as more discriminatory.  $M_d = 3.98$ ;  $SD = 1.07$ , and  $M_c = 1.90$ ;  $SD = 1.10$ ;  $t(189) = 13.25$ ,  $p < .001$ ,  $d = 1.92$ .

### ***Bivariate Correlations***

AIS was significantly linked to greater CIC ( $r = .42$ ,  $p < .001$ ) and more frequent psychological symptoms ( $r = .22$ ,  $p = .003$ ); however, it was unrelated to life satisfaction. CIC was shown to be negatively correlated with life satisfaction ( $r = -.22$ ,  $p = .002$ ) and positively correlated with psychological symptoms ( $r = .44$ ,  $p < .001$ ). Psychological symptoms were negatively correlated with life satisfaction ( $r = -.53$ ,  $p = .001$ ). All bivariate correlations can be found in Table 2.

**Table 1**

#### *Psychometric Properties for Survey Scales*

Scale	A	No. of Items	Response Range	M	SD
Alternating Identity Style	.82	7	1.00-5.00	3.11	.85
Cultural Identity Conflict	.86	6	1.00-4.83	2.49	.86
Life Satisfaction	.90	5	1.00-5.00	3.42	.90
Psychological Symptoms	.94	15	1.00-4.80	2.23	.94

**Table 2***Correlations among Study Variables*

	1	2	3
1. Alternating Identity Style	-		
2. Cultural Identity Conflict	.42**	-	
3. Life Satisfaction	.03	-.22*	-
4. Psychological Symptoms	.22*	.53**	-.53**

*Note.* \*  $p < .05$ . \*\*  $p < .01$ .

## Hypothesis Testing

### *Hypothesis 1*

Independent samples t-tests indicated that there was not a significant difference in the use of the AIS;  $t(189) = -.50$ ,  $p = .62$ ,  $d = -.07$  between the discrimination and control conditions. As such, hypothesis 1a was not supported. There was a marginally significant difference in CIC between the discrimination ( $M_d = 2.60$ ,  $SD = .83$ ) and control ( $M_c = 2.38$ ,  $SD = .90$ ) condition and small to medium effect size;  $t(189) = 1.80$ ,  $p = .07$ ,  $d = .26$ . Hypothesis 1b was thus supported. Regarding the psychological wellbeing variables, there were no significant differences in life satisfaction between the discrimination and control conditions ( $t(189) = .53$ ,  $p = .59$ ,  $d = .07$ ). The discrimination condition, however, resulted in significantly more frequent psychological symptoms ( $M_d = 2.37$ ,  $SD = .90$ ) compared to the controls ( $M_c = 2.10$ ,  $SD = .77$ );  $t(189) = 2.31$ ,  $p = .02$ ,  $d = .34$ . Thus, hypothesis 1 c was partially supported.

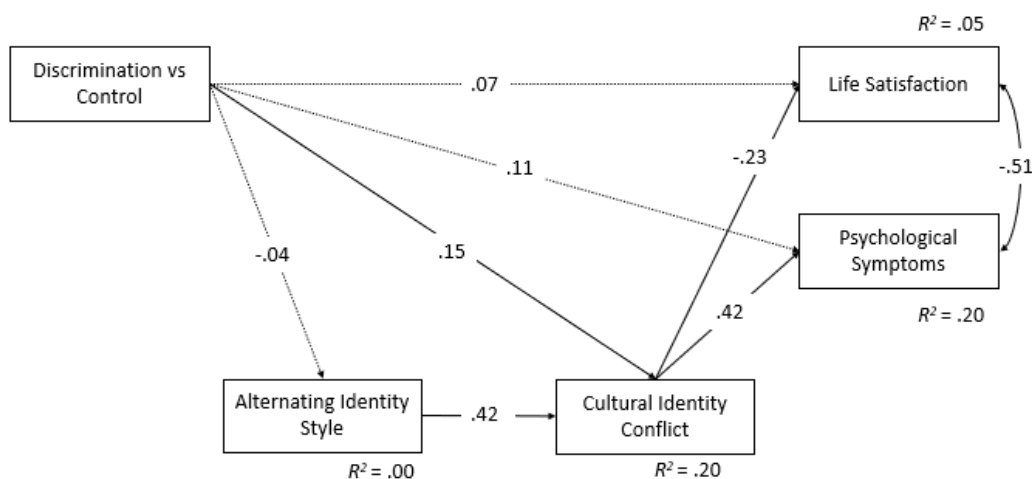
### *Hypothesis 2*

The original hypothesised model (Figure 3) showed poor model fit:  $\chi^2 = 9.94$ ,  $df = 2$ ,  $\chi^2/df = 4.97$ , CFI = .948, TLI = .742, RMSEA [90% CI] = .145 [.064, .239], SRMR = .038 (a

summary of model fit indices can be found in Table 3). The chi-square degrees freedom ratio was greater than 2.0; the CFI was just below .95 and the TLI was below the acceptable cut-off of .90, while the RMSEA was above the recommended cut-off of .08. As such, I decided to look at the suggested modification indices, which proposed drawing a direct path from AIS to life satisfaction (MI = 7.51). It was also decided to prune the non-significant paths from discrimination to the AIS, life satisfaction, and psychological symptoms.

**Figure 3**

*Standardised Coefficients for the Path Model of discrimination and Cultural Identity Negotiation*



*Note.* Dotted lines indicate non-significant paths. All other paths significant at the 5% level.

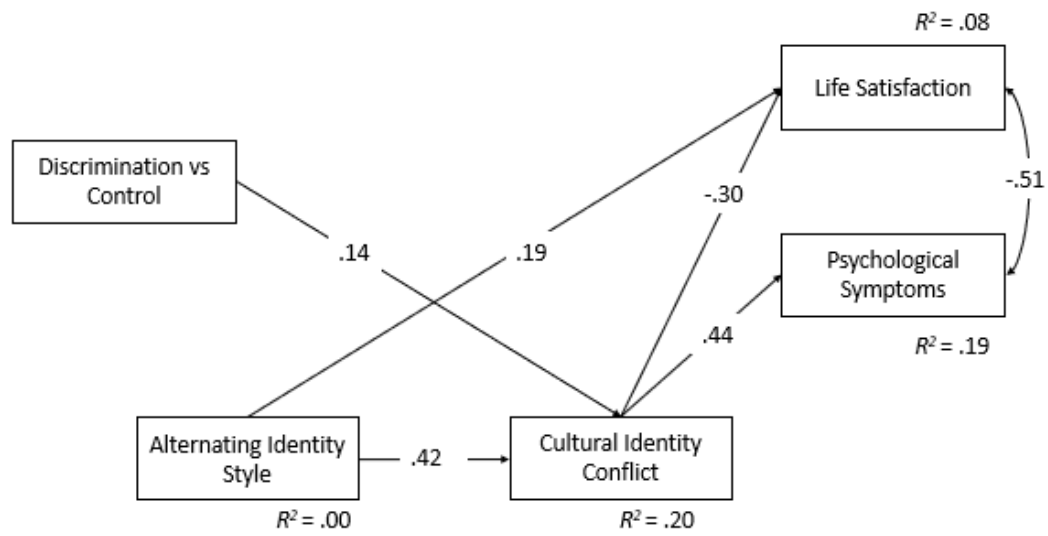
Curved arrows indicate error or residual covariances.

The final model (Figure 4) showed acceptable fit:  $\chi^2 = 9.76$ ,  $df = 4$ ,  $\chi^2/df = 2.44$ , CFI = .963, TLI = .906, RMSEA [90% CI] = .087 [.012, .158], SRMR = .036. While the RMSEA was just above the acceptable cut-off, the chi-square and degree of freedom ratio test was below the recommended 5.0 cut off, the CFI and SRMR were good, and the TLI was acceptable. In this model, discrimination positively predicted CIC ( $\beta = .14$ ,  $p = .016$ ), which, in turn, was a negative predictor of life satisfaction ( $\beta = -.30$ ,  $p = .002$ ) and a positive

predictor of psychological symptoms ( $\beta = .44, p = .001$ ). AIS was also a positive predictor of CIC ( $\beta = .42, p = .001$ ), and interestingly showed a direct positive link to life satisfaction ( $\beta = .19, p = .014$ )<sup>1</sup>. Despite not having a direct pathway between them, discrimination still exerted an indirect effect on life satisfaction and psychological symptoms through CIC. Additionally, AIS exerted an indirect effect on life satisfaction and psychological symptoms through CIC. The summary of indirect effects can be found in Table 4. Considering discrimination did not predict the use of AIS or the wellbeing variables, hypothesis 2 was only partially supported.

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<sup>1</sup> A reversed mediational model was also tested to examine the possibility of AIS mediating the impact of CIC on psychological outcomes. This was to test for a potential suppression effect. In this model, discrimination predicted CIC, which in turn led to AIS and onto psychological outcomes, indicating a net suppression effect. This model had a substantially poorer fit than the theoretical model:  $\chi^2 = 30.03, df = 2, \chi^2/df = 15.01, CFI = .828, TLI = .089, RMSEA [90\% CI] = .272 [.191, .361], SRMR = .104$ . The full model (figure 8) can be found in Appendix D.

**Figure 4***Final Model of Discrimination and Cultural Identity Negotiation*

*Note.* All paths significant at the 5% level. Curved arrows indicate error or residual covariances.

**Table 3***Comparison of Fit Indices Across Models*

Model	$\chi^2$				CFI	TLI	RMSEA			SRMR
	Value	Df	$\chi^2/\text{df}$	P			Value	95% CI	p	
1	9.94	2	4.97	.007	0.948	0.742	.145	[.064, .239]	.029	.038
2	9.76	4	2.44	.045	0.963	0.906	.087	[.012, .158]	.153	.036

*Note.*  $\chi^2/\text{df}$  = chi-square/degree of freedom ratio; CFI = comparative fit index; TLI = Tucker Lewis Index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CI = confidence interval

**Table 4***Standardized Indirect Effects for the Final Model*

	<i>B</i>	S.E.	90% CI		<i>p</i>
			LL	UL	
Discrimination → LS	-.04	.02	-.10	-.01	.009
Discrimination → PS	.06	.03	.013	.13	.011
AIS → LS	-.13	.04	-.23	-.05	.001
AIS → PS	.19	.04	.11	.27	.001

*Note.*  $\beta$  = standardised indirect effect; S.E. = Standard Error; LL = lower limit; UL = upper limit; AIS = alternating identity style; SWL= satisfaction with life; PS: psychological symptoms; LS = life satisfaction.

### Discussion

The current thesis utilised an experimental design to examine the impact of discrimination on cultural identity negotiation. Based on previous cross-sectional findings, it was expected that discrimination would cause a greater use of the AIS, greater reported CIC, and lower levels of psychological wellbeing, in comparison to a control condition. It was also expected that the proposed mediational model would show that the AIS and CIC, sequentially, would partially mediate the relationship between discrimination and psychological symptoms.

To start with, our experimental manipulation was successful. Participants in the discrimination condition saw their comments as more negative and more discriminatory than those in the control condition as expected. Contrary to my hypothesis, however, those who were exposed to the discrimination condition did not report significantly higher levels of the AIS in comparison to our control condition. Thus, part a of hypothesis 1 was rejected. A



small effect size was found between the conditions for CIC, with those in the discrimination condition reporting higher levels than those in the control, although this result was only marginally significant ( $p = 0.07$ ). Thus, part b of hypothesis 1 was supported. Finally, those in the discrimination condition reported significantly higher levels of psychological symptoms than those in the control condition; however, there was no significant difference in life satisfaction between the conditions. Therefore, part c of hypothesis 1 was partially supported.

The relationship between discrimination and psychological symptoms (such as depression and anxiety) for biculturals has been well documented in meta-analyses (de Freitas et al., 2018; Lee & Ahn, 2011). Additionally, perceived discrimination has been linked to numerous social, behavioural and health outcomes, including greater substance abuse, poorer educational outcomes, and poorer physical health (Donovan et al., 2013; Gerrard et al., 2018; Gibbons et al., 2010; Mays et al., 2007; Museus et al., 2008). Discrimination has also been shown to predict an increase in antisocial behaviours, such as physical aggression (Brody et al., 2006; Park et al., 2013), which in turn can lead to negative wellbeing outcomes (Sakai et al., 2007).

While the discrimination-psychological outcomes link has been previously observed in experimental settings (Schmitt et al., 2003), this was the first study to investigate the relationship between discrimination and AIS using an experimental approach. By design, experiments assess momentary changes in outcome variables. It may be the case that the experimental manipulation designed for this study was not effective at shifting people's tendency to engage AIS in the moment. In comparison to everyday life where the use of a cultural identity style may be influenced by *continual* exposure to cultural stimuli (Doucerain et al., 2013), an online post may be somewhat ephemeral – a bicultural may see an unpleasant post, feel uncomfortable, and move on. This action requires no further interaction with the

cultural context, potentially meaning there is no need to utilise the AIS in this moment.

Additionally, while participants may have momentarily been reminded of how they feel when exposed to discrimination, as suggested by the significant finding for psychological symptoms, experiencing a single moment of discrimination may not be enough to dramatically change a person's overall life satisfaction, which is known to be relatively stable over time (Willroth et al., 2020). In addition, a meta-analysis by Schmitt et al. (2014) concluded that the association between perceived discrimination and well-being is stronger for negative than positive outcomes.

The lack of significant differences in life satisfaction and the AIS in experimental and control conditions may have also been affected by the nature of the discrimination manipulation. Previous research has noted that individuals are more likely to perceive discrimination as targeting their group than being directed towards themselves (Dion & Kawakami, 1996; Taylor et al., 1990). Schmitt et al.'s (2014) meta-analysis indicated that the effect size for the negative relationship between discrimination and well-being is stronger for personal compared to group discrimination, and in some studies group-based discrimination is unrelated to life satisfaction altogether (Kapeli et al., 2020). Some researchers have suggested that discrimination against an ethnic ingroup may increase feelings of identification with that group, fostering a sense of belonging in the face of rejection (Armenta & Hunt, 2009; Bourguignon et al., 2006; Branscombe et al., 1999; Lou et al., 2022). Previous cross-sectional work looking at the effects of discrimination on the AIS and life satisfaction has focused on self-reported perceptions of discrimination, which incorporate perceptions of personal discrimination. This is in comparison to the fictitious comments generated for this study, which mainly targeted our Chinese Americans as a group, rather than participants personally. It is difficult to make judgements about the effects of group versus personal discrimination on the AIS due to the lack of pre-existing literature, although there is the

potential that, as with subjective wellbeing, personal discrimination exerts a stronger effect than group discrimination, thus explaining the non-significant finding.

Alternatively, the measurement of the AIS may have also contributed to the lack of significant results. Despite the evidence that use of the AIS fluctuates daily (Schwartz et al., 2021), the way it is currently measured through the MISS reflects a more *general* use of the AIS, rather than its use at a single point in time, since it captures the process of how biculturals negotiate their identity over time. This goes hand in hand with how the effects of discrimination are looked at in studies analysing AIS. Previous cross-sectional studies have investigated how general experiences of discrimination in a person's life, such as in Noh and Kaspar's (2003) measure, impact the use of the AIS (e.g., Qumseya, 2018). It is possible then that the AIS subscale of the MISS may not be an effective way of capturing changes in use of the AIS after being exposed to a single discriminatory event.

While the difference between conditions in CIC was not significant at the 0.05 level, a small effect size was identified, with those in the discrimination condition reporting marginally higher levels of CIC than those in the control condition. Subsequently, this effect became significant in the mediational model once the relationship between AIS and CIC was accounted for, with discrimination positively predicting CIC. CIC reflects a reduced sense of cultural identity clarity and coherence (Ward et al., 2011, Szabó & Ward, 2021). Biculturals' experience of discrimination from members of the majority culture may increase the dissonance between heritage and majority cultural identities. Discrimination has been shown to predict greater CIC in previous survey research (Leong & Ward, 2000; Qumseya, 2018; Ward et al., 2001), and the present study extends these findings in an experimental design. In comparison, the relationship between discrimination and psychological symptoms became non-significant in this model. It was found that the relationship between the two variables was fully mediated by CIC, suggesting biculturals may experience more symptoms as being

exposed to discrimination because of increased feelings of CIC. Unlike our original prediction, AIS did not mediate the relationship between discrimination and CIC or the psychological wellbeing measures. Overall, only portions of our predicted mediational model were confirmed.

Despite the differences in the findings relating to discrimination and outcome variables between the mean comparisons and mediational models, the paths in Qumseya's (2018) and Ward et al.'s (2018) models were still replicated in the current study. Specifically, use of the AIS predicted greater CIC, which, in turn, predicted greater psychological symptoms and lower psychological wellbeing. These particular paths have been found with numerous cultural populations, including Arab, Chinese, and Greek New Zealanders and Arab Israelis among others (Qumseya, 2018; Ward et al., 2018). With this study, we can now extend these findings to Chinese Americans. Additionally, a partial mediation between AIS and wellbeing through CIC was found. CIC playing a mediational role in the relationship between the AIS and wellbeing is consistent with Ward et al.'s (2018) findings, alongside Berzonsky's (2003) statement regarding identity outcomes acting as mediators between identity styles and wellbeing outcomes.

What is interesting in our model is the direct positive path from the AIS to life satisfaction, as this particular path has not been identified in previous studies. Quantitative work on the AIS, like the current research, tends to show that AIS predicts greater identity conflict, which, in turn, predicts poorer wellbeing outcomes (Qumseya, 2018; Ward et al., 2018). Despite this, qualitative work done on the AIS seems to suggest that biculturals perceive AIS as a beneficial strategy that affords them with agency, or a feeling they have control over identity-related choices (Balanovic et al., 2020; Qumseya, 2018; Stuart & Ward, 2011). Therefore, this is the first study to find a quantitative link between AIS and positive wellbeing outcomes. This result, however, should be noted with caution due to the lack of a

bivariate correlation and a possibility of a noted net suppression effect of CIC on this relationship. Further research is thus required to better understand if and under what conditions AIS may be beneficial for psychological wellbeing.

### **Strengths, Limitations and Future Research**

One of the notable strengths of the current study is its novel approach to an experiment using fictional Facebook posts. As people's access to internet across the world continues to grow, the ability for biculturals to be exposed to racial discrimination online also increases. Not only may people be personally targeted depending on how they display their cultural identities online (Kahn et al., 2013), but also passively on social media such as Twitter, Facebook, or Reddit by reading about discriminatory comments targeting others (Daniels, 2013; Umaña-Taylor et al., 2015; Criss et al., 2021). Utilising fictional posts provides a range of benefits: due to Facebook having roughly 2.910 billion monthly users (Facebook, 2021), it is likely that most participants will understand the context of the post and comments, decreasing any potential confusion they may have about the materials. This may also give the fictional posts created for this study ecological validity – the fact that the type of post and comments can be seen across different corners of the internet may in turn make them more believable to our participants. Considering our participants saw our conditions as significantly different from each other, and that there was a significant difference in reported psychological symptoms between our conditions, I suggest this is a valid design for presenting experimental discriminatory material to participants. Indeed, other experiments have successfully utilised social media to look at the effects of discrimination. A study by Lee-Won et al. (2019) utilised Twitter to find that hate tweets from multiple sources, in comparison to neutral tweets, predicted greater emotional distress in a Black-American population. Further exploration in using similar methods is thus recommended.

An additional strength of the current study is that it adds to the replication validity of previous studies in the same vein. In recent years, researchers have become increasingly concerned about the existence of false positive results – that is, falsely finding significant effects, whether it be accidentally or through the manipulation of data (Ioannidis, 2005; Maxwell et al., 2015; Simmons et al., 2011). Subsequently, there has been a clamour for studies to be replicated in the hope of reducing the risk of false positive results (Moonesinghe et al., 2007). The mediational model found in the current thesis replicates parts of similar models from Ward et al. (2018) and Qumseya (2018) - specifically the path from AIS to CIC and then to psychological wellbeing. This supports the original findings in those papers and our current understanding of the AIS and its relationships to these variables. Additionally, the current study extends research on the AIS to an additional population: Chinese Americans.

Regarding limitations, the online nature of the experiment may constitute as one. Due to the population I worked with being overseas, it was impossible to make use of a laboratory setting which would have allowed us to have more control over the conditions of testing. Online participation may leave respondents open to other stimuli and distractions, which could have affected the responses given. This could be a notable issue if participants took a break between viewing our experimental conditions and answering our survey questions, as the effect of the condition may have worn off over time, thus influencing their future responses. As mentioned in the method section, I attempted to minimise this issue by deleting responses when participants who failed our attention checks or took over an hour to complete the survey, yet this issue may still have affected some of our results.

Looking to the future at potential studies, the current research poses some interesting questions that could be worth exploring – one of which being how to capture the AIS in moment-to-moment experiences. While still a useful tool in cross-sectional data, the MISS may not be as useful in directly capturing the use of the AIS in a single moment like the

current study attempted. Indeed, a daily diary study of cultural identity styles and well-being used a single item indicator for the alternating identity style over a 10-day period, which demonstrated marked fluctuation over time (Schwartz et al., 2019). A potential future study could involve the development of a new scale specifically focusing on the use of the AIS in the moment, combined with our understanding of the antecedents that predict its use. Items could be modified to contextualize the use of AIS, such as “When I am discriminated against, I highlight my Chinese identity”, or “When I am discriminated against, I highlight my American identity.”

Another useful avenue could be to do more qualitative work to investigate the mechanics of AIS. As mentioned previously, there is a disparity between quantitative and qualitative work on the differing effects of the AIS on wellbeing. Quantitative work tends to link AIS to poorer wellbeing (Qumsey, 2018; Ward et al., 2018), although Ward et al. (2021) have shown AIS can attenuate the relationship between acculturative stress and externalising symptoms. On the other hand, qualitative work suggests its use can be a more positive force when related to agency (Balanovic et al, 2020; Qumsey, 2018; Stuart & Ward, 2011). In relation to the current study, a replication followed up by a qualitative study may give us the opportunity to explore ideas such as how people understand their moment-to-moment cultural identities.

While this thesis is another addition to the growing work on cultural identity styles, that is not its only contribution to the broader literature. Firstly, the experimental materials designed for this study can be used in other fields of psychological study. As a significant difference in how discriminatory the materials were perceived and levels of psychological symptoms were found between conditions, this may allow other researchers interested in these topics to utilise them, including other cross-cultural researchers who wish to understand

the effects of discrimination on migrant groups or social psychologists interested in interactions between different cultural groups.

Secondly, it is a good reminder that *how* biculturals attempt to integrate may have important effects on their wellbeing. As mentioned in the introduction, integration is only one of four acculturation strategies biculturals may utilise when negotiating their identities (Berry, 1997) and is still the most preferable strategy overall (Berry et al., 2006, Berry & Sabatier, 2011). Additionally, it is important to remember this negotiation of identity does not occur in a vacuum. Integration is influenced by the interactions biculturals have with the contexts around them, with discrimination from members of the majority culture being one example. Taking a more in-depth look at the AIS helps us understand that not only are there different ways of integrating one's cultural identities, but that the way people integrate can have differing outcomes for their wellbeing, giving us a more detailed picture of the overall acculturation process, along with how this process is influenced by contextual factors.

### **Applications of the Current Research**

The current research, in combination with previous and ongoing work on cultural identity styles, suggests a number of applications to real life settings in both mental health support and policy domains. There have been calls from multiple groups, including scientists and politicians, for more culturally relevant mental health services to better support differing cultural groups (Gopalkrishnan, 2018; RNZ, 2022; Thompkins et al., 2020). Further exploration of the deeper mechanics of identity styles may not only give us as researchers a better understanding of how these mechanisms operate, but can also provide useful information to counsellors and organizations working with migrant groups, allowing them to better understand their clients' experiences and to develop more effective interventions or intercultural training. This may have an added benefit of not only promoting positive



outcomes for migrant groups, but also potentially facilitate further institutional change with more importance being placed on biculturals' wellbeing, such as in educational and business settings.

Of course, providing support to biculturals only goes so far if the root causes of these issues are not addressed. Therefore, the current study also has implications for policies in any country with large ethno-cultural diversity. It is important not to forget that discrimination is embedded in a socio-political *context* – something that permeates society as a day-to-day issue biculturals must navigate. By developing policies to address discrimination - whether that be through punitive measures such as fining discriminatory behaviour or through the adoption of multicultural practices - governments may be able to promote change at the societal level through a top-down approach, as seen with practices such as environmental or public health issues (de Groot & Schuitema, 2012; Kinzig et al., 2013; Salazar et al., 2003). By promoting a more culturally accepting society, this will generate more positive outcomes for biculturals through an overall reduction in discrimination. Whereas individual interventions may only help biculturals who can access them, social policy change promotes benefits for all.

### **Concluding Remarks**

While this experiment did not have the effect predicted in regard to the AIS, it still serves as a valuable stepping stone and provides support for previous work on acculturation and cultural identity styles. Regardless, the multiple threads connecting discrimination to CIC and psychological wellbeing cannot be ignored, proffering a challenge to countries and their institutions to better care for the biculturals who live within their borders. Through addressing the challenges biculturals face in their day to day lives, and changing societal norms, we can foster better interactions and wellbeing outcomes for them.

## References

- Armenta, B. E., & Hunt, J. S. (2009). Responding to societal devaluation: Effects of perceived personal and group discrimination on the ethnic group identification and personal self-esteem of Latino/Latina adolescents. *Group Processes & Intergroup Relations*, 12(1), 23-39. <https://doi.org/10.1177/1368430208098775>
- Balanovic, J., Stuart, J., & Ward, C. (2020). “The chance to look, to examine, to explore”: A qualitative study of intercultural contact and cultural identity exploration for Muslim immigrants. *International Perspectives in Psychology: Research, Practice, Consultation*, 9(1), 36–47. <https://doi.org/10.1037/ipp0000122>
- Barlow, F. K., Sibley, C. G., & Hornsey, M. J. (2012). Rejection as a call to arms: Inter-racial hostility and support for political action as outcomes of race-based rejection in majority and minority groups. *British Journal of Social Psychology*, 51(1), 167-177. <https://doi.org/10.1111/j.2044-8309.2011.02040.x>
- Benet-Martínez, V. (2018). Multiculturalism: Cultural, social and personality processes (2nd ed.). In K. Deaux & M. Snyder (Eds.), *The Oxford handbook of personality and social psychology* (pp. 723-750). Oxford, UK: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195398991.013.0025>
- Benet-Martínez V., & Haritatos, J. (2005). Bicultural Identity Integration (BII): Components and Psychosocial Antecedents. *Journal of Personality*, 73(4), 1015-1050. <https://doi.org/10.1111/j.1467-6494.2005.00337.x>
- Benet-Martínez, V., Lee, F., & Leu, J. (2006). Biculturalism and cognitive complexity: Expertise in cultural representations. *Journal of Cross-Cultural Psychology*, 37(4), 386-407. <https://doi.org/10.1177/0022022106288476>

- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating Biculturalism. *Journal of Cross-Cultural Psychology*, 33(5), 492-516.  
<https://doi.org/10.1177/0022022102033005005>
- Berry, J. W. (1974). Psychological aspects of cultural pluralism: Unity and identity reconsidered. In R. Brislin (Ed.), *Topics in culture learning* (pp. 17–22). Honolulu, HA: East-West Culture Learning Institute.
- Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review*, 46, 5-68. <https://doi.org/10.1111/j.1464-0597.1997.tb01087.x>.
- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 17–37). American Psychological Association. <https://doi.org/10.1037/10472-004>
- Berry, J. W. (2009). A critique of critical acculturation. *International Journal of Intercultural Relations*, 33(5), 361-371. <https://doi.org/https://doi.org/10.1016/j.ijintrel.2009.06.003>
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology*, 55(3), 303-332.  
<https://doi.org/10.1111/j.1464-0597.2006.00256.x>
- Berry, J. W., & Sabatier, C.. (2011). Variations in the assessment of acculturation attitudes: Their relationships with psychological wellbeing. *International Journal of Intercultural Relations*, 35(5), 658–669. <https://doi.org/10.1016/j.ijintrel.2011.02.002>
- Berzonsky, M. D. (1989). Identity Style: Conceptualization and measurement. *Journal of Adolescent Research*, 4(3), 268-282. <https://doi.org/10.1177/074355488943002>
- Berzonsky, M. D. (1992). Identity Style and Coping Strategies. *Journal of Personality*, 60(4), 771-788. <https://doi.org/10.1111/j.1467-6494.1992.tb00273.x>

- Berzonsky, M. D. (2003). Identity style and well-being: Does commitment matter? *Identity*, 3(2), 131-142. <https://doi.org/10.1207/S1532706XID030203>
- Bierwiaczonek, K., & Kunst, J. R. (2021). Revisiting the integration hypothesis: Correlational and longitudinal meta-analyses demonstrate the limited role of acculturation for cross-cultural adaptation. *Psychological Science*, 32(9), 1476-1493. <https://doi.org/10.1177/09567976211006432>
- Birman, D. (1994). Acculturation and human diversity in a multicultural society. In E. J. Trickett, R. J. Watts, & D. Birman (Eds.), *Human diversity: Perspectives on people in context* (pp. 261–284). Jossey-Bass.
- Bourguignon, D., Seron, E., Yzerbyt, V., & Herman, G. (2006). Perceived group and personal discrimination: Differential effects on personal self-esteem. *European Journal of Social Psychology*, 36(5), 773-789. <https://doi.org/10.1002/ejsp.326>
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of personality and social psychology*, 77(1), 135. <https://doi.org/10.1037/0022-3514.77.1.135>
- Brody, G. H., Chen, Y.-F., Murry, V. M., Ge, X., Simons, R. L., Gibbons, F. X., Gerrard, M., & Cutrona, C. E. (2006). Perceived discrimination and the adjustment of African American youths: A five-year longitudinal analysis with contextual moderation Effects. *Child Development*, 77(5), 1170–1189. <https://doi.org/10.1111/j.1467-8624.2006.00927.x>
- Budiman, A., & Ruiz, N. G. (2021, April 29). *Key facts about Asian Americans, a diverse and growing population*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/04/29/key-facts-about-asian-americans/>

- Carter, R. T., Lau, M. Y., Johnson, V., & Kirkinis, K. (2017). Racial Discrimination and Health Outcomes Among Racial/Ethnic Minorities: A Meta-Analytic Review. *Journal of Multicultural Counseling and Development*, 45(4), 232-259.  
<https://doi.org/10.1002/jmcd.12076>
- Cheng, C.-Y., Sanchez-Burks, J., & Lee, F. (2008). Connecting the dots within. *Psychological Science*, 19(11), 1178-1184. <https://doi.org/10.1111/j.1467-9280.2008.02220.x>
- Criss, S., Michaels, E. K., Solomon, K., Allen, A. M., & Nguyen, T. T.. (2021). Twitter Fingers and Echo Chambers: Exploring Expressions and Experiences of Online Racism Using Twitter. *Journal of Racial and Ethnic Health Disparities*, 8(5), 1322–1331. <https://doi.org/10.1007/s40615-020-00894-5>
- Daniels, J. (2013). Race and racism in Internet Studies: A review and critique. *New Media & Society*, 15(5), 695–719. <https://doi.org/10.1177/1461444812462849>
- de Freitas, D. F., Fernandes-Jesus, M., Ferreira, P. D., Coimbra, S., Teixeira, P. M., De Moura, A., Gato, J., Marques, S. C., & Fontaine, A. M. (2018). Psychological correlates of perceived ethnic discrimination in Europe: A meta-analysis. *Psychology of Violence*, 8(6), 712-725. <https://doi.org/10.1037/vio0000215>
- de Groot, J. I. M., & Schuitema, G. (2012). How to make the unpopular popular? Policy characteristics, social norms and the acceptability of environmental policies. *Environmental Science & Policy*, 19-20, 100–107.  
<https://doi.org/10.1016/j.envsci.2012.03.004>
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of personality assessment*, 49(1), 71-75.  
[https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)

- Dion, K. L., & Kawakami, K. (1996). Ethnicity and perceived discrimination in Toronto: Another look at the personal/group discrimination discrepancy. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 28(3), 203. <https://doi.org/10.1037/0008-400X.28.3.203>
- Donovan, R. A., Huynh, Q. L., Park, I. J., Kim, S. Y., Lee, R. M., & Robertson, E. (2013). Relationships among identity, perceived discrimination, and depressive symptoms in eight ethnic-generational groups. *Journal of Clinical Psychology*, 69(4), 397-414. <https://doi.org/10.1002/jclp.21936>
- Doucerein, M., Dere, J., & Ryder, A. G. (2013). Travels in hyper-diversity: Multiculturalism and the contextual assessment of acculturation. *International Journal of Intercultural Relations*, 37(6), 686-699. <https://doi.org/10.1016/j.ijintrel.2013.09.007>
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual review of psychology*, 53(1), 161-186. <https://doi.org/10.1146/annurev.psych.53.100901.135228>
- Facebook. (2021). *Facebook Reports Third Quarter 2021 Results*. [https://s21.q4cdn.com/399680738/files/doc\\_financials/2021/q3/FB-09.30.2021-Exhibit-99.1.pdf](https://s21.q4cdn.com/399680738/files/doc_financials/2021/q3/FB-09.30.2021-Exhibit-99.1.pdf)
- Ferguson, G. M., & Bornstein, M. H. (2012). Remote acculturation: The “Americanization” of Jamaican islanders. *International Journal of Behavioral Development*, 36(3), 167-177. <https://doi.org/10.1177/0165025412437066>
- Garstka, T. A., Schmitt, M. T., Branscombe, N. R., & Hummert, M. L. (2004). How Young and Older Adults Differ in Their Responses to Perceived Age Discrimination. *Psychology and Aging*, 19(2), 326–335. <https://doi.org/10.1037/0882-7974.19.2.326>

- Gerrard, M., Gibbons, F. X., Fleischli, M. E., Cutrona, C. E., & Stock, M. L. (2018). Moderation of the effects of discrimination-induced affective responses on health outcomes. *Psychology & Health*, 33(2), 193-212.  
<https://doi.org/10.1080/08870446.2017.1314479>
- Gibbons, F. X., Etcheverry, P. E., Stock, M. L., Gerrard, M., Weng, C. Y., Kiviniemi, M., & O'Hara, R. E. (2010). Exploring the link between racial discrimination and substance use: what mediates? What buffers? *Journal of personality and social psychology*, 99(5), 785. <https://doi.org/10.1037/a0019880>
- Gopalkrishnan, N. (2018). Cultural Diversity and Mental Health: Considerations for Policy and Practice. *Frontiers in Public Health*, 6. <https://doi.org/10.3389/fpubh.2018.00179>
- Graves, T. D. (1967). Psychological acculturation in a tri-ethnic community. *Southwestern Journal of Anthropology*, 23(4), 337-350.  
<https://doi.org/10.1086/soutjanth.23.4.3629450>
- Hofhuis, J., Hanke, K., & Rutten, T. (2019). Social network sites and acculturation of international sojourners in the Netherlands: The mediating role of psychological alienation and online social support. *International Journal of Intercultural Relations*, 69, 120-130. <https://doi.org/10.1016/j.ijintrel.2019.02.002>
- Hooper, D., Coughlan, J., & Mullen, M. (2007). Structural equation modeling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1).  
<https://doi.org/10.21427/D7CF7R>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.  
<https://doi.org/10.1080/10705519909540118>

- Human Rights Watch (2020, May 12) *COVID-19 fueling anti-Asian racism and xenophobia worldwide*. <https://www.hrw.org/news/2020/05/12/covid-19-fueling-anti-asian-racism-and-xenophobia-worldwide>
- Huynh, Q.-L., Benet-Martínez, V., & Nguyen, A.-M. D. (2018). Measuring variations in bicultural identity across U.S. ethnic and generational groups: Development and validation of the Bicultural Identity Integration Scale—Version 2 (BIIS-2). *Psychological Assessment*, 30(12), 1581-1596. <https://doi.org/10.1037/pas0000606>
- International Organization for Immigration (n.d.). *Interatcive World Migration Report 2022*. <https://worldmigrationreport.iom.int/wmr-2022-interactive/>
- Ioannidis, J. P. A.. (2005). Why Most Published Research Findings Are False. *PLOS Medicine*, 2(8), e124. <https://doi.org/10.1371/journal.pmed.0020124>
- Jin, C. H., Talbot, R., & Wang, H. L. (2021, August 13). *What the New Census Data Shows About Race Depends on How You Look At It*. NPR. [npr.org/2021/08/13/1014710483/2020-census-data-us-race-ethnicity-diversity](https://www.npr.org/2021/08/13/1014710483/2020-census-data-us-race-ethnicity-diversity)
- Kahn, K. B., Spencer, K., & Glaser, J. (2013). Online prejudice and discrimination: From dating to hating. In Y. Amichai-Hamburger (Ed.), *The social net: Understanding our online behavior* (pp. 201–219). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199639540.003.0011>
- Kapeli, S. A., Manuela, S., & Sibley, C. G. (2020). Perceived discrimination is associated with poorer wellbeing outcomes among Pacific peoples in New Zealand. *Journal of Community and Applied Social Psychology*, 30, 132-150. <https://doi.org/10.1002/casp.2433>
- Kinzig, A. P., Ehrlich, P. R., Alston, L. J., Arrow, K., Barrett, S., Buchman, T. G., Daily, G. C., Levin, B., Levin, S., Oppenheimer, M., Ostrom, E., & Saari, D. (2013). Social



- Norms and Global Environmental Challenges: The Complex Interaction of Behaviors, Values, and Policy. *Bioscience*, 63(3), 164–175.  
<https://doi.org/10.1525/bio.2013.63.3.5>
- Kirk, R. E. (2012). Experimental Design. In I. Weiner, J. Schinka, W. Velicar (Eds.), *Handbook of Psychology, Research Methods in Psychology*, John Wiley & Sons, Incorporated, 2012. <https://doi.org/10.1002/9781118133880.hop202001>
- LaFromboise, T., Coleman, H. L. K., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 114(3), 395-412.  
[doi:http://dx.doi.org/10.1037/0033-2909.114.3.395](http://dx.doi.org/10.1037/0033-2909.114.3.395)
- Lee, D. L., & Ahn, S. (2011). Racial Discrimination and Asian Mental Health: A Meta-Analysis. *The Counseling Psychologist*, 39(3), 463-489.  
<https://doi.org/10.1177/0011000010381791>
- Lee-Won, R. J., White, T. N., Song, H., Lee, J. Y., & Smith, M. R. (2020). Source magnification of cyberhate: Affective and cognitive effects of multiple-source hate messages on target group members. *Media Psychology*, 23(5), 603-624.  
<https://doi.org/10.1080/15213269.2019.1612760>
- Leong, C.-H., & Ward, C. (2000). Identity conflict in sojourners. *International Journal of Intercultural Relations*, 24(6), 763-776. [https://doi.org/10.1016/s0147-1767\(00\)00030-4](https://doi.org/10.1016/s0147-1767(00)00030-4)
- Lou, N. M., Noels, K. A., Kurl, S., Zhang, Y. S. D., & Young-Leslie, H. (2022, January 13). COVID Discrimination Experience: Chinese Canadians' Social Identities Moderate the Effect of Personal and Group Discrimination on Well-Being. *Cultural Diversity and Ethnic Minority Psychology*. Advance online publication.  
<https://doi.org/10.1037/cdp0000519>

- MacCallum, R. C. (1995). Model specification: Procedures, strategies, and related issues. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 16–36). Sage Publications, Inc.
- Magallares, A., Luna, B., Garriga, M., Botella-Carretero, J. I., & Morales, J. F. (2016). Subtle discrimination and subjective well-being in obese patients: The personal/group discrimination discrepancy. *Stigma & Health, 1*(3), 156-165.  
<https://doi.org/10.1037/sah0000021>
- Marcoccia, M. (2012). The internet, intercultural communication and cultural variation. *Language and Intercultural Communication, 12*(4), 353-368.  
<https://doi.org/10.1080/14708477.2012.722101>
- Maxwell, S. E., Lau, M. Y., & Howard, G. S. (2015). Is psychology suffering from a replication crisis? What does “failure to replicate” really mean? *American Psychologist, 70*(6), 487–498. <https://doi.org/10.1037/a0039400>
- Mays, V. M., Cochran, S. D., & Barnes, N. W. (2007). Race, race-based discrimination, and health outcomes among African Americans. *Annual Review of Psychology, 58*, 201-225.  
<https://doi.org/10.1146/annurev.psych.57.102904.190212>
- McCoy, S. K., & Major, B. (2003). Group identification moderates emotional responses to perceived prejudice. *Personality and Social Psychology Bulletin, 29*(8), 1005-1017.  
<https://doi.org/10.1177/0146167203253466>
- Moonesinghe, R., Khoury, M. J., & Janssens, A. C. J. W.. (2007). Most Published Research Findings Are False—But a Little Replication Goes a Long Way. *PLOS Medicine, 4*(2), e28. <https://doi.org/10.1371/journal.pmed.0040028>

- Museus, S. D., Nichols, A. H., & Lambert, A. D. (2008). Racial differences in the effects of campus racial climate on degree completion: A structural equation model. *The Review of Higher Education*, 32(1), 107-134. <https://doi.org/10.1353/rhe.0.0030>
- Ng Tseung-Wong, C., Dandy, J., & Lane, M. (2022). Perceived diversity norms, cultural identity styles and bicultural identity consolidation in two bicultural groups in Australia. *International Journal of Psychology*. <https://doi.org/10.1002/ijop.12829>
- Nguyen, A.-M. D., & Benet-Martínez, V. (2013). Biculturalism and Adjustment. *Journal of Cross-Cultural Psychology*, 44(1), 122-159.  
<https://doi.org/10.1177/0022022111435097>
- Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American journal of public health*, 93(2), 232-238. <https://doi.org/10.2105/ajph.93.2.232>
- Park, I. J. K., Schwartz, S. J., Lee, R. M., Kim, M., & Rodriguez, L. (2013). Perceived racial/ethnic discrimination and antisocial behaviors among Asian American college students: Testing the moderating roles of ethnic and American identity. *Cultural Diversity and Ethnic Minority Psychology*, 19(2), 166–176. <https://doi.org/10.1037/a0028640>
- Phinney, J. S., & Devich-Navarro, M. (1997). Variations in bicultural identification among African American and Mexican American adolescents. *Journal of Research on Adolescence*, 7(1), 3–32. [https://doi.org/10.1207/s15327795jra0701\\_2](https://doi.org/10.1207/s15327795jra0701_2)
- Phinney, J. S., Horenczyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic Identity, Immigration, and Well-Being: An Interactional Perspective. *Journal of Social Issues*, 57(3), 493-510. <https://doi.org/10.1111/0022-4537.00225>

- Qumseya, T. G. I. (2018). *Toward a better understanding of the cultural identity negotiation: The experiences of minority youth in multicultural societies* [Doctoral dissertation, Victoria University of Wellington]. Open Access Te Herenga Waka-Victoria University of Wellington. <https://doi.org/10.26686/wgtn.17134244.v1>
- Redfield, R., Linton, R., & Herskovits, M. J. (1936). Memorandum for the Study of Acculturation. *American Anthropologist*, 38(1), 149-152.  
<https://doi.org/10.1525/aa.1936.38.1.02a00330>
- RNZ. (2022, January 20). *National calls for better mental health services for Asians*.  
<https://www.rnz.co.nz/news/political/459871/national-calls-for-better-mental-health-services-for-asians>
- Sakai, J. T., Risk, N. K., Tanaka, C. A., & Price, R. K. (2008). Conduct disorder among Asians and native Hawaiian/Pacific Islanders in the USA. *Psychological Medicine*, 38(7), 1013-1025. <https://doi.org/10.1017/S0033291707001316>
- Salazar, L. F., Baker, C. K., Price, A. W., & Carlin, K. (2003). Moving Beyond the Individual: Examining the Effects of Domestic Violence Policies on Social Norms. *American Journal of Community Psychology*, 32(3-4), 253–264.  
<https://doi.org/10.1023/b:ajcp.00000004746.31861.e7>
- Savidge, N. (2020). *Oakland: Native Americans welcome newest Americans at special citizenship ceremony*. Mercury News.  
<https://www.mercurynews.com/2020/01/25/oakland-native-americans-welcome-newest-americans-at-special-citizenship-ceremony/>
- Schmitt, M. T., Branscombe, N. R., & Postmes, T. (2003). Women's emotional responses to the pervasiveness of gender discrimination. *European Journal of Social Psychology*, 33(3), 297-312. <https://doi.org/10.1002/ejsp.147>

- Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin, 140*(4), 921-948. <https://doi.org/10.1037/a0035754>
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling, 2nd ed.* Lawrence Erlbaum Associates Publishers.  
<https://doi.org/10.4324/9781410610904>
- Schwartz, S. J., Martinez, C. R., Meca, A., Szabó, Á., Ward, C., Cobb, C. L., Cano, M. Á., Unger, J. B., & Salas-Wright, C. P. (2021). Toward a micro-level perspective on acculturation among U.S. Hispanic college students: A daily diary study. *Journal of Clinical Psychology, 77*(1), 121–144. <https://doi.org/10.1002/jclp.23009>
- Schwartz, S. J., Meca, A., Ward, C., Szabó, Á., Benet-Martínez, V., Lorenzo-Blanco, E. I., Sznitman, G. A., Cobb, C. L., Szapocznik, J., Unger, J. B., Cano, M. Á., Stuart, J., & Zamboanga, B. L. (2019). Biculturalism dynamics: A daily diary study of bicultural identity and psychosocial functioning. *Journal of Applied Developmental Psychology, 62*, 26–37. <https://doi.org/10.1016/j.appdev.2018.12.007>
- Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: implications for theory and research. *American Psychologist, 65*(4), 237. <https://doi.org/10.1037/a0019330>
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-Positive Psychology. *Psychological Science, 22*(11), 1359–1366.  
<https://doi.org/10.1177/0956797611417632>
- Stuart, J., & Ward, C. (2011). A Question of Balance: Exploring the Acculturation, Integration and Adaptation of Muslim Immigrant Youth. *Psychosocial Intervention, 20*(3), 255-267. <https://doi.org/10.5093/in2011v20n3a3>

- Szabó, Á., & Ward, C. (2020). The relationship between intercultural abilities and cultural identity styles: A longitudinal cross-lagged analysis. *International Journal of Psychology*, 55(3), 465-471. <https://doi.org/10.1002/ijop.12592>
- Szabó, Á., & Ward, C. (2021). Development and validation of a short form version of the Ethno-Cultural Identity Conflict Scale (EICS-SF). *Assessment*, 107319112110001. <https://doi.org/10.1177/10731911211000108>
- Taylor, D. M., Wright, S. C., Moghaddam, F. M., & Lalonde, R. N.. (1990). The Personal/Group Discrimination Discrepancy. *Personality and Social Psychology Bulletin*, 16(2), 254–262. <https://doi.org/10.1177/0146167290162006>
- Thompkins, F., Jr., Goldblum, P., Lai, T., Hansell, T., Barclay, A., & Brown, L. M. (2020). A culturally specific mental health and spirituality approach for African Americans facing the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(5), 455–456. <https://doi.org/10.1037/tra0000841>
- Triana, M. D. C., Jayasinghe, M., & Pieper, J. R. (2015). Perceived workplace racial discrimination and its correlates: A meta-analysis. *Journal of Organizational Behavior*, 36(4), 491-513. <https://doi.org/10.1002/job.1988>
- Umaña-Taylor, A. J., Tynes, B. M., Toomey, R. B., Williams, D. R., & Mitchell, K. J. (2015). Latino adolescents' perceived discrimination in online and offline settings: An examination of cultural risk and protective factors. *Developmental Psychology*, 51(1), 87-100. <http://dx.doi.org/10.1037/a0038432>
- Ward, C., Ng Tseung-Wong, C., Szabó, Á., Qumseya, T., & Bhowon, U. (2018). Hybrid and Alternating Identity Styles as Strategies for Managing Multicultural Identities. *Journal of Cross-Cultural Psychology*, 49(9), 1402-1439. <https://doi.org/10.1177/0022022118782641>

- Ward, C., Stuart, J., & Kus, L. (2011). The construction and validation of a measure of ethno-cultural identity conflict. *Journal of Personality Assessment*, 93(5), 462-473.  
<https://doi.org/10.1080/00223891.2011.558872>
- Ward, C., Szabó, Á., Schwartz, S. J., & Meca, A. (2021). Acculturative stress and cultural identity styles as predictors of psychosocial functioning in Hispanic Americans. *International Journal of Intercultural Relations*, 80, 274-284.  
<https://doi.org/10.1016/j.ijintrel.2020.12.002>
- Willroth, E. C., John, O. P., Biesanz, J. C., & Mauss, I. B. (2020). Understanding short-term variability in life satisfaction: The Individual Differences in Evaluating Life Satisfaction (IDELS) model. *Journal of personality and social psychology*, 119(1), 229. <https://doi.org/10.1037/pspp0000261>
- Wong, F., & Halgin, R. (2006). The “Model Minority”: Bane or Blessing for Asian Americans?. *Journal of Multicultural Counseling and Development*, 34(1), 38–49.  
<https://doi.org/10.1002/j.2161-1912.2006.tb00025.x>
- Yampolsky, M. A., Amiot, C. E., & de la Sablonnière, R. (2016). The Multicultural Identity Integration Scale (MULTIIS): Developing a comprehensive measure for configuring one’s multiple cultural identities within the self. *Cultural Diversity and Ethnic Minority Psychology*, 22(2), 166-184.  
<https://doi.org/http://dx.doi.org/10.1037/cdp0000043>
- Ye, F. T. F., & Buchtel, E. E. (2021). Multiculturalism, Culture Mixing, and Prejudice: Effects of Priming Chinese Diversity Models Among Hong Kong University Students. *Frontiers in psychology*, 3107.

## Appendices

### Appendix A

#### Information Sheet



#### Culture, Identity, and Experiences on Social Media

##### INFORMATION FOR PARTICIPANTS

This research has been approved by Victoria University of Wellington's Human Ethics Committee [0000029117].

You are invited to take part in this study. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

##### Who are we?

- My name is Benjamin Hooper, and I am a Masters student in Cross-Cultural Psychology at Victoria University of Wellington, New Zealand. This research project will contribute towards my thesis. I have two supervisors assisting me on this project, Prof. Colleen Ward and Dr. Ágnes Szabó.

##### What is the aim of the project?

- This project aims to look at cultural identity and the personal experiences of Chinese Americans on social media.

##### To participate in this research, you must:

- Be at least 18 years old
- Be of Chinese descent
- Currently be living in the United States

##### How can you help, and what is involved if you agree to participate?

- You have been invited to participate because you have identified as a Chinese American. If you agree to take part, you will be presented with a Facebook post and asked about your reactions to it. Then you will be asked to complete a survey. Some



parts of the survey will ask you to rate your agreement with certain statements, such as “Who I am depends on social context,” and “I experience conflict over my identity” while others will ask how often you feel certain ways, such as “tired,” or “inspired”. The survey should take you about 20 minutes to complete.

- Participation in this research is voluntary, and you are free to withdraw at any time. However, if you complete and submit your survey, we are not able to return your data as the researchers cannot identify individual participants.
- If you complete the survey, you will receive an award as specified in your invitation from Qualtrics to participate in this study.

### **Privacy and Confidentiality**

- ***This research is anonymous.*** This means that the researchers do not know your identity and cannot match it to your responses. Please do not include any personal identifiable information in your responses. The information you provide will be coded by number only, and survey responses are not linked to individuals.

### **What will happen to the information you give?**

- The survey responses (data) without identifying information included will be kept indefinitely in a secure file.
- In accordance with the requirements of some scientific journals and organizations, and in the interest of open science, the data without identifying information may be shared with other researchers.
- The data without identifying information may be used in other, related studies or in connection with future funding applications.
- An electronic copy of the data without identifying information will remain in the custody of members of the research team.

### **What will the project produce?**

- The information from the research will be used in my Master’s dissertation and academic publications and conferences. Data from this research may also be shared with other researchers by request or through online data repositories such as the Open Science Framework.
- The findings will be available by the 1<sup>st</sup> of December, 2021 and made accessible to research participants.

### **If you have any questions or problems, who can you contact?**

If you have any questions, either now or in the future, please feel free to contact either:

#### **Benjamin Hooper**

Role : Primary Researcher  
School of Psychology  
Victoria University of Wellington

#### **Prof. Colleen Ward**

Role: Primary Supervisor  
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**Dr. Ágnes Szabó**

Role: Secondary Supervisor

School of Health

Victoria University of Wellington

[agnes.szabo@vuw.ac.nz](mailto:agnes.szabo@vuw.ac.nz)

### **Human Ethics Committee information**

If you have any concerns about the ethical conduct of the research, you may contact the Victoria University of Wellington HEC Convenor: Associate Professor Judith Loveridge. Email [hec@vuw.ac.nz](mailto:hec@vuw.ac.nz) or telephone +64-4-463 6028.

### **Consent for participation**

I have read the information sheet and give my consent to participate and to use my survey responses as described. As a reminder, your data will be anonymous; your participation is voluntary; you are free to withdraw from the survey at any time before your responses are submitted; your responses will be kept by the research team and may be shared with other researchers or used in future related studies.

Agree ☐

## Debriefing Statement



### **Culture, Identity, and Experiences on Social Media Debriefing Statement Ethics Application: 0000029117**

Thank you for participating in this research.

This study involved deception concerning the Facebook posts and comments you saw. These were generated for the purpose of this study and do not actually exist. However, this was necessary for the purposes of the study. Any resemblance to reality or real comments and people was completely accidental.

We wished to understand whether differing levels of social inclusion or exclusion caused changes in the use of cultural identity styles – ways people deal with their multiple cultural identities. There are two main styles: the alternating identity style, where people switch between different cultural identities depending on the situation (represented by statements in this study such as, “I alternate between being Chinese and American depending on the circumstances”), and the hybrid identity style, which involves blending elements of multiple cultural identities in different contexts (represented by statements in this study such as, “For me being Chinese and being American come together in a culturally novel way”).

Previous work on the alternating identity style has suggested it is predicted by socio-political factors such as social exclusion. We expected being exposed to more excluding comments would cause an increase in the use of the alternating identity style, while more inclusive comments would cause a decrease in the use of the alternating identity style.

To test this, we created three versions of a Facebook post: an exclusion version, where participants saw comments such as “I’ll only accept these people if they act like true Americans. Speak properly, don’t be arrogant and respect our values!! Otherwise you’re not welcome!”; an inclusion version, with comments such as “Congratulations! So excited to have you all become a part of our community. You are all here because you deserve to be, and don’t let anyone tell you otherwise.”; and a neutral version, with comments such as “Good photo. Just a question to the photographer - what kind of equipment do you use? I’d love to find something that takes photos as professionally as this.”

We were also interested in the outcomes of using cultural identity styles, as they have shown to be related to positive emotions and life satisfaction. This research is important because it gives us insights into how individuals manage their multiple cultural identities and the implications for wellbeing.

If you received the Facebook post with negative comments and found these distressing, you

may like to discuss your feelings with your friends and family. If you feel you are in need of more professional help, you may wish to contact a service such as Samaritans USA (Call or text (877) 870-4673/ [samaritanshope.org](http://samaritanshope.org)) or Crisis Text Line (Text 741741/ [www.crisistextline.org](http://www.crisistextline.org)). Finally, if you have any concerns regarding the study, please feel free to contact the researchers.

If you are interested in the research findings, these will be posted at [www.victoria.ac.nz/cacr](http://www.victoria.ac.nz/cacr) by December 1, 2021. Additionally, you can send an email to [hooperbenj@myvuw.ac.nz](mailto:hooperbenj@myvuw.ac.nz).

Once again, we thank you for participating in this study. This research would not be possible without your help.

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**End Survey Message:** The survey was designed for Chinese Americans and those aged 18 or over. For this study, this involves individuals who identify with both Chinese culture and American culture. If you did not indicate that you identified at least to some extent with both of these cultures or that you were under the age of 18, you would not be able to continue with the rest of the survey.

We thank you for your time spent taking this survey.  
Your response has been recorded.

## Appendix B

### Experimental Materials and Instructions

**Instructions:** Please look at the following image. This image was posted on the *US Immigration News* Facebook page. The page has a following of people interested in immigration the US. It provides news relating to immigration and shares pictures from events like Naturalization Ceremonies.

**Figure 5**

*Fictitious Facebook Post*



*Note.* The original image was taken by Michael Short for Mercury News. From *Oakland: Native Americans welcome newest Americans at special citizenship ceremony*, by N. Savidge, 2020 (<https://www.mercurynews.com/2020/01/25/oakland-native-americans-welcome-newest-americans-at-special-citizenship-ceremony/>). Adapted with permission from Michael Short and Mercury News.

**Instructions:** Some followers are supportive of immigration to the US, while others are against it. There are also occasionally spam posts. Below are some selected comments on the above photo which we would like you to read. After you are done, please continue on with the rest of the study.

**Figure 6***Experimental Condition Fictitious Comments***Figure 7***Control Condition Fictitious Comments*

### Manipulation Checks

After reading these comments, we would like you to answer the following questions.

*1 = Extremely negative, 5 = Extremely positive*

1. How positive or negative do you feel the comments were?

*1 = not at all, 5 = extremely*

2. How discriminatory towards Chinese Americans do you feel the comments are?

### Engagement Questions

Have you experienced anything similar to the content of the comment section of this photo?

Yes\_\_\_\_, No\_\_\_\_

If yes: Please write a short description of this experience.

If no: Have your friends or family experienced anything similar to the content of the comment section of this photo?

Yes\_\_\_\_, No\_\_\_\_

If yes: Please write a short description of your friend or family's experience.

If no: Please continue on with the rest of the study.

## Appendix C

### Demographic Information

Please complete the following questions about yourself.

This survey is for Chinese Americans.

By this we mean individuals of Chinese heritage who were born in the United States or who are living in the United States as citizens or permanent residents and consider the United States their home.

*1 = Not at all, 5 = Very much*

1. To what extent do you feel Chinese?
2. To what extent do you feel American?

1) Are you... (select one)?    \_\_\_ Female     \_\_\_ Male       \_\_\_Non-binary / third gender  
                                         \_\_\_Prefer not to say

2) What is your age (in years)? \_\_\_\_\_

3a) Were you born in the United States \_\_\_\_Yes \_\_\_\_No

3b) If not, what is your country of birth? \_\_\_\_\_

3c) If you were not born in the United States, how long have you lived there (in years)?

\_\_\_\_\_

4) Was your mother born in the United States?           Yes      No      Don't know

5) Was your father born the United States?      ☐ Yes   ☐ No   ☐ Don't know



6) Please rate your English language proficiency.

Poor	Average	Good	Excellent	Native Speaker
1	2	3	4	5

7) Please rate your Chinese language proficiency.

Poor	Average	Good	Excellent	Native Speaker
1	2	3	4	5

8) What is the highest level of education that you have completed (tick one)?

None \_\_\_\_\_

Primary school \_\_\_\_\_

Some high school (not completed) \_\_\_\_

Completed high school \_\_\_\_

Certificate or Diploma \_\_\_\_

Bachelor's Degree \_\_\_\_

Postgraduate Degree \_\_\_\_

### Survey Materials

#### The Multicultural Identity Styles Scale : AIS subscale (Ward et al., 2018)

Please rate your agreement or disagreement to the following items.

*1 = Strongly disagree, 5 = Strongly agree*

1. I have a Chinese private self and an American public self.
2. I alternate between being Chinese and American depending on the circumstances.
3. I am very Chinese with my family compared to with other people.
4. I am Chinese at home and American at school/work.

5. Who I am depends on the social context.
6. Some situations make it hard to be Chinese and American at the same time.
7. I can be Chinese or American depending on the situation.

**The Ethno-cultural Identity Conflict Scale Short-Form (Szabó & Ward, 2021)**

Please rate your agreement or disagreement to the following items.

*1 = Strongly disagree, 5 = Strongly agree*

1. I am an outsider in both my own ethnic group and the wider society.
2. Because of my cultural heritage, I sometimes wonder who I really am.
3. I do not know which culture I belong to
4. I find it hard to maintain my cultural values in everyday life.
5. I sometimes question my cultural identity.
6. I am confused by the different demands placed on me by family and other people.

**The Satisfaction with Life Scale (Diener et al., 1985)**

How do the following apply to how you think about yourself and your life?

*1 = Strongly disagree, 5 = Strongly agree*

1. In most ways my life is close to ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have got the important things in life.
5. If I could live my life over, I would change almost nothing.

**Psychological Symptoms Scale (Berry et al., 2006)**

How often do you experience the following?

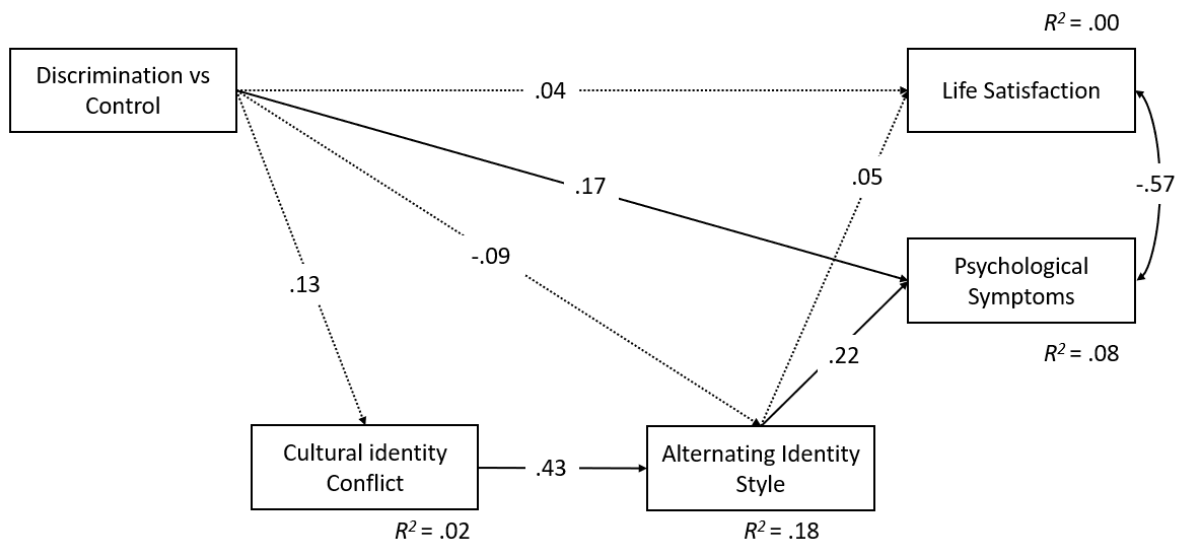
*1 = Never, 5 = Very often*

1. I feel tired.
2. I feel sick in the stomach.
3. I feel dizzy and faint.
4. I feel short of breath even when not exerting myself.
5. I feel weak all over.
6. I feel tense or keyed up.
7. I feel nervous and shaky inside.
8. I feel restless.
9. I feel annoyed or irritated.
10. I am worried about something bad happening to me.
11. I feel unhappy and sad.
12. My thoughts seem to be mixed up.
13. I worry a lot of the time.
14. I feel lonely even with other people.
15. I lose interest and pleasure in things that I usually enjoy.

## Appendix D

**Figure 8**

*Reversed Mediation Model to Test Possibility of the AIS Mediating the Impact of CIC on Psychological Outcomes*



*Note.* Dotted lines indicate non-significant paths. All other paths significant at the 5% level.

Curved arrows indicate error or residual covariances.