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# Cross-Situational Consistency of Trait Expressions and Injunctive Norms Among Asian Canadian and European Canadian Undergraduates

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Objective: In the current paper, we sought to clarify when and why Asian Americans/Canadians and European Americans/Canadians differ in self-consistency (the consistency of personality traits across situations). *Method:* European Canadian (n = 220) and second-generation Asian Canadian (n = 166) undergraduates ( $M_{\text{age}} = 19$  years) described the traits they expressed and the traits others wanted them to express (i.e., injunctive norms, or injunctions) in four different social situations (i.e., with parents, with friends, with siblings, and with professors). Results: Self-consistency was greater among European Canadians than Asian Canadians, but only when comparing behavior with parents versus with peers (i.e., friends and siblings). The same pattern was found for injunctive consistency (cross-situational consistency of trait injunctions). Injunctions strongly predicted the behavior of both Asian and European Canadians, but because the injunctions from parents versus peers diverged more for Asian Canadians, so did their behaviors. Controlling for the effect of inconsistent injunctions across situations eliminated the ethnic difference in self-consistency. Finally, Asian Canadians who perceived their immigrant parents as embracing a Canadian identity were as cross-situationally consistent as European Canadians because they tended to behave—and believe their parents approved of their behaving—with parents similarly to how they behaved with peers (e.g., more carefree and outspoken). Conclusion: Contrary to previous theorizing, cultural influences on broad cognitive or motivational dispositions (e.g., dialecticism, collectivism) alone cannot explain the observed pattern of ethnic differences in consistency. To understand when bicultural individuals are less consistent across situations also requires an understanding of the specific situations across which they tend to encounter divergent social norms.

Keywords: self-consistency, injunctive norms, Asian immigrants, cross-cultural, ethnic identity

The cross-situational consistency of personality is a topic of considerable theoretical and practical importance (Mischel, 2004). Over the decades, researchers have given various names to an individual's tendency to report expressing similar traits in different contexts, including *cross-role consistency* (Boucher, 2011), *identity consistency* (Suh, 2002), and *self-consistency* (Zhang, Noels, Lalonde, & Salas, 2017). For the current paper, we developed and tested the thesis that Asian Canadians exhibit less self-consistency across situations than European Canadians when one of the situations evokes behavioral norms that reflect their family's heritage culture and those norms differ from the mainstream behavioral norms salient in other situations.

Although dozens of self-consistency studies have been published, only two have examined ethnic differences in self-

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The study materials and data are publicly available via the Open Science Framework at (https://osf.io/dwyfc/).

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consistency within countries, and both involved Asian and European American/Canadians. In English and Chen (2007, Study 1), European American and Chinese, Japanese, and Korean American undergraduates indicated how much they expressed various personality traits in (a) two different college situations (e.g., discussion section, gym, party), (b) two different noncollege situations (e.g., restaurant, work, grocery store), or (c) two different relationships (i.e., with friends or roommates vs. with parents or siblings). Asian Americans' self-consistency across the two relationships (e.g., parent-friend) was lower than their self-consistency across situations (e.g., party, gym) and European Americans' selfconsistency across either relationships or situations. In Zhang et al. (2017, Study 2), European and East Asian Canadian undergraduates indicated to what degree they expressed various traits when they were with their parents versus with their friends. Again, across these two relationship contexts, Asian Canadians' selfconsistency was lower than European Canadians' self-consistency.

Zhang et al. (2017) attributed their results to the influence of naïve dialecticism (Spencer-Rodgers, Williams, & Peng, 2010), a belief system prominent in East Asian cultures that understands phenomena—including the self—to be intrinsically inconsistent, changing, and complex. Although dialecticism might encourage East Asians to acknowledge personal inconsistencies, it does not address English and Chen's (2007) findings that, compared with European Americans, Asian Ameri-

cans showed equivalent levels of cross-situational self-consistency except when one of the contexts involved their family (and in a follow-up study showed equivalent levels of personality stability over time within situations). To explain their complex results, English and Chen suggested that "Asian Americans possess self-concepts that are tailored to specific relationship contexts, whereas European Americans hold relatively more global, decontextualized self-conceptions" (p. 482), presumably "because of cultural differences in the emphasis placed on relationships" (p. 487).

However, neither the dialectical self nor the interdependent self-explanation provides a completely satisfying account of the findings. Across the two studies detailed above, the only replicated finding was that Asian American/Canadian students were less consistent than European American students with respect to traits expressed with parents versus traits expressed with friends. While the dialectical- and interdependent-self accounts may explain ethnic differences in willingness to recognize and express inconsistency, they do not offer an explanation for why ethnic differences in inconsistency were only observed across certain contexts (and were not observed across time). Therefore, in the current paper, we posited and tested an additional, complementary mechanism that we believe helps provide a more complete and satisfying account of the observed ethnic differences. Specifically, we posited that there are ethnic differences in consistency across specific social situations because there are ethnic differences in the perceived social expectations within those situations.

Beliefs about how others want you to act in a particular situation are called injunctive social norms or, more simply, injunctions (Anderson & Dunning, 2014; Chung & Rimal, 2016). For example, an undergraduate may believe that, when she or he is with friends, they want her or him to be vivacious and rambunctious, but when s/he is with his or her parents, they want him/her to be subdued and courteous. Across most American/Canadian educational, occupational, and recreational settings, young adults are encouraged to seek personal fulfillment and to engage with others as strong-willed, independent, autonomous equals (Hofstede, 2001). European American/Canadian parents also typically support the development of these attitudes and behaviors (Greenfield, Keller, Fuligni, & Maynard, 2003). For example, from an early age, European American/Canadian parents favor authoritativereciprocal parenting styles, which invite children to communicate openly, participate in decision-making, and develop personal autonomy; in contrast, many Asian-immigrant parents favor strict, authoritarian, controlling parenting styles (Shin & Wong, 2013; Yoon et al., 2017; cf. Cheah, Leung, & Zhou, 2013). Compared with children of European American/Canadian parents, children of Asian-immigrant parents are more encouraged to respect and defer to their parents and to prioritize parental wishes and familial cohesion over their personal emotions and individual attitudes and goals (Kwak, 2003). Consequently, the injunctive norms individuals experience with their parents versus the injunctive norms individuals experience when they are with peers and members of the wider American/Canadian community may be more discrepant for Asian American/Canadians than for European American/Canadians.

# **Current Study and Hypotheses**

In the current study, we asked Canadian undergraduates, who identified either as Asian Canadian (with at least one Asianimmigrant parent) or as European Canadian, to describe the traits they expressed and trait injunctions they experienced in four different social situations: With parents, professors, friends, and siblings or other similarly aged relatives. We then compared the two ethnic groups with respect to four types of consistency: (a) Self-consistency is the cross-situational consistency of an individual's trait expressions. For example, the degree to which a student, Stu, is more outspoken than quiet with both his parents and his friends reflects Stu's self-consistency. (b) Injunctive consistency is the cross-situational consistency of an individual's trait injunctions. For example, the degree to which Stu believes that both his parents and his friends prefer him to be more outspoken than quiet reflects Stu's injunctive consistency. (c) Self-injunctive consistency is the consistency between the individual's trait expressions and trait injunctions within a particular situation. For example, the match between how outspoken/quiet Stu thinks his parents want him to be and how outspoken/quiet Stu actually behaves with his parents reflects Stu's self-injunctive consistency. (d) Noninjunctive self-consistency is self-consistency that cannot be attributed to an individual's conforming to cross-situationally consistent injunctions. Operationally, noninjunctive self-consistency involves assessing the degree to which there is consistency across situations in how an individual's expressed behavior deviates from injunctive norms within each situation. For example, if Stu is less outspoken with his parents than they want him to be and also less outspoken with his friends than his friends want him to be, then Stu is showing noninjunctive self-consistency. Alternatively, if Stu is more outspoken with his parents and with his friends than either his parents or his friends want him to be, then that also would be an example of noninjunctive self-consistency. However, if Stu is more outspoken with his parents than his parents want but less outspoken with his friends than his friends want, then Stu is showing noninjunctive self-inconsistency.

Our hypotheses were as follows.

Hypothesis 1: Asian Canadians show less injunctive consistency than European Canadians specifically when comparing behavior in parent–child interactions with behavior in other types of interactions. The rationale is that there is no reason why friends, siblings, or professors would want or demand different behavior from European Canadians than from second-generation Asian Canadians; thus, there is no reason to predict ethnic differences in injunctive consistency across situations involving friends, siblings, or professors. However, there is reason to predict that the gap between the expectations for behavior with parents versus behavior elsewhere is larger for students whose parents emigrated from Asia; thus, there is reason to predict ethnic differences in consistency when comparing the injunctions expressed in parent–child interactions with those expressed in other social interactions.

Hypothesis 2: Asian Canadians show less self-consistency than European Canadians, specifically when comparing behavior in parent-child interactions with behavior in other types of interactions. The rationale is that people behave similarly across two situations to the degree that they believe

similar injunctions apply to both situations (and differently to the degree they believe different injunctions apply to each situation). Therefore, if European Canadians show more injunctive consistency than Asian Canadians when comparing behavior in parent—child interactions with behavior in other types of interactions, then we should expect parallel findings for self-consistency.

Hypothesis 3: Asian Canadians show reduced injunctive consistency and self-consistency when comparing behavior in parent-child interactions with behavior in other types of interactions to the degree that their parents' cultural identity is more Asian or less Canadian. Hypothesis 3 mirrors Hypotheses 1 and 2, but additionally specifies that Asian Canadians experience injunctions and express behaviors with their parents that differ from those they experience and express elsewhere, to the degree that their immigrant parents identify with their heritage cultural norms rather than with Canadian cultural norms. For example, among Asian-immigrant parents to the United States, enculturation to Asian culture is associated with more authoritarian parenting, whereas acculturation to American culture is associated with more authoritative parenting (Shin & Wong, 2013). Therefore, if less authoritarian, more authoritative parenting encourages second-generation Asians to be expressive and independent around their parents-like they are in other social situations-then having immigrant parents who are less identified with Asian culture and more identified with Canadian culture should increase the consistency between traits expressed with parents and traits expressed elsewhere. Therefore, the current study tested if Asian Canadian students' self- and injunctive consistencies were associated with their parents' Asian and Canadian cultural identities.

Hypothesis 4: After subtracting the influence of injunctions on trait expression, the different ethnic groups manifest similar levels of (noninjunctive) self-consistency. The rationale is that cross-situationally, stable personality dispositions (e.g., to be quiet or bossy) and cross-situationally consistent injunctions are distinct sources of cross-situational self-consistency (Locke et al., 2017). Whereas culture may moderate injunctive consistency, there is little evidence that culture moderates the stability and predictive validity of personality dispositions (Church & Katigbak, 2017). Therefore, after subtracting the influence of injunctions (e.g., how quiet or bossy one should be with specific others) within each ethnic group, noninjunctive self-consistency (e.g., some persons being consistently atypically quiet or bossy) would be equally apparent.

Hypothesis 5: Both European Canadians and Asian Canadians show strong self-injunctive consistency. There is considerable evidence that a need for secure, stable connections is universally human (Baumeister & Leary, 1995). Across cultures and ethnic groups, people generally seek approval and avoid disapproval from important others—such as teachers, friends, and family—and therefore generally conform to injunctive norms. Hypothesis 5, though not novel, merits testing because it is implicit in the rationales for Hypotheses 2–4.

As noted above, previous papers have attributed the relatively low self-consistency of Asian Americans/Canadians to Asian cul-

tures shaping selves that were more dialectical (and thus "malleable and ever-changing;" Spencer-Rodgers et al., 2010) or interdependent (and thus more prone to "cross-situational fluidity;" Heine, 2010). To be clear, the dialectical- and interdependent-self theories would neither predict nor contradict our five hypotheses. These theories do not focus on the role of situation-specific injunctions, and instead emphasize an internal source of inconsistency—namely, the degree to which the self is experienced as fluid, contextualized, and entangled with others. The dialectical-and interdependent-self theories have not produced an account of why ethnic differences in consistency might be observed across some contexts but not others. By positing an additional, external source of inconsistency—namely, the degree to which different social situations imply different norms—our injunctive-norm theory attempts to fill that lacuna.

## Method

## **Participants**

The participants were students at Wilfrid Laurier University in Waterloo, Ontario, Canada who participated in exchange for extra credit in a psychology course. Because most Wilfrid Laurier undergraduates are European Canadian, to recruit enough Asian Canadian participants, after a general recruitment phase we specifically recruited participants who self-identified as Chinese, Filipino, Japanese, Korean, South Asian, or Southeast Asian. All participants were required to be Canadian citizens, less than 31 years of age, and to have lived in Canada for at least 5 years. Participants included in the European Canadian sample had to report a "White or Caucasian" racial/ethnic background. Participants included in the Asian Canadian sample had to report an Asian ethnic background and at least one parent born in East, South, or Southeast Asia. Most of the Asian Canadians' parents came from just four countries: Specifically, 83% reported that at least one parent—and 71% reported that both parents—were from China, India, the Philippines, or Vietnam. Participants were excluded if they skipped a page, gave the same answer to every item on a page of the questionnaire, or did not give affirmative answers to two validity-check questions (i.e., "I am answering these questions honestly" and "I am currently completing a questionnaire").

The final sample consisted of 166 Asian Canadians (57 men, 109 women) and 220 European Canadians (59 men, 160 women, 1 unreported); the sex ratio did not significantly differ between the two samples,  $\chi^2(1) = 2.45$ . The mean ages for the Caucasian and Asian samples were, respectively, 19.0 (SD = 1.7) and 19.0 (SD = 1.6). The mean years at university was 1.7 (SD = 1.1) for both samples. Thus, most participants were traditional-age first- and second-year undergraduates. Although most students in both samples had lived their entire lives in Canada, the mean years living in Canada was slightly greater for European Canadians (M = 18.8, SD = 2.3) than Asian Canadians (M = 17.4, SD = 3.5), t = 4.7, p < .01. Because age, sex, and years in Canada did not predict any type of consistency, they are not mentioned here further.

#### **Materials**

Assessment of trait expressions. Participants indicated how often they expressed each of 20 traits in each of four different

social situations: at home with parents, at home with siblings (or other close relatives similar in age), at college with friends, and at college with professors on the following 7-point scale: never, almost never, less than half the time, about half the time, more than half the time, almost always, always. These four situations typify different combinations of the variables of family and generation: Siblings or relatives of similar age are from the same family and same generation, parents are from the same family but a previous generation, friends are from a different family but the same generation, and professors are from a different family and a previous generation. Prior self-consistency studies have been less systematic in their sampling of social situations because they assumed that the source of consistency was the participant rather than the situations being studied.

In total, each participant made 80 (20 traits × 4 situations) self-ratings. The trait list included the same five positive traits (considerate, conscientious, expressive, open-minded, patient) and five negative traits (bossy, irresponsible, lazy, moody, picky) used by English and Chen (2007, Study 1). In addition, to create a more representative set of traits, we included 10 less evaluative traits; specifically, using the social desirability ratings obtained by Norman (1967) and Hampson, Goldberg, and John (1987), we selected five pairs of contrasting, nonevaluative traits (casual, formal; cautious, carefree; traditional, nonconforming; mischievous, predictable; quiet, outspoken).

**Assessment of injunctions.** Using the same 7-point (*never* to *always*) scale, participants then indicated in each situation (i.e., with parents, with siblings, with friends, with professors) "how often would [those other individuals] consider it desirable or appropriate for you to" express each trait. Thus, in total, each participant made 80 (20 traits  $\times$  4 situations) injunctive-norm ratings.

Assessment of cultural identity. Asian Canadians completed a 12-item measure of their own and their parents' cultural identity adapted from the Abbreviated Multidimensional Acculturation Scale (Zea, Asner-Self, Birman, & Buki, 2003). Participants rated the items on 5-point scales ranging from Strongly Disagree to Strongly Agree. Three items assessed participants' Canadian cultural identity or self-Canadian (i.e., "I think of myself as being Canadian," "I feel connected to Canadian culture," and "I have a strong sense of being Canadian;"  $\alpha = .89$ ). Parallel items assessed participants' Asian cultural identity (self-Asian; e.g., "I think of myself as being Asian;"  $\alpha = .93$ ), and perceptions of their parents' Canadian identity (parent-Canadian; e.g., "My parents think of themselves as being Canadian;"  $\alpha = .89$ ) and Asian identity (parent-Asian; e.g., "My parents think of themselves as being Asian;"  $\alpha = .96$ ). Table 1 shows the descriptive statistics for each scale and the correlations between scales. We did not assess European Canadians' cultural identity because they are unlikely to distinguish European from Canadian culture as sharply as Asian Canadians distinguish Asian from Canadian culture, and thus are unlikely to interpret parallel items (e.g., "I think of myself as being European") in an analogous way.

#### **Procedure**

Participants completed an online questionnaire asking them to answer several demographic questions before rating their trait expressions and the injunctive norms within each situation. (Par-

Table 1
Descriptive Statistics and Zero-Order Correlations for the
Cultural Identity Scales

Scales	M	SD	1	2	3	4
1. Self-Canadian	4.34	(.72)	_			
2. Self-Asian	3.92	(.91)	.02	_		
<ol><li>Parent-Canadian</li></ol>	3.33	(.90)	.43	.02	_	
4. Parent-Asian	4.43	(.58)	.11	.43	16	_

*Note.* N=165 (because of missing data from one participant). Scale items were rated on 1–5-point scales. Correlation coefficients  $\geq |.16|$  are significant at p < .05.

ticipants also completed general personality/mood measures not pertinent to this paper). The eight different types of rating (i.e., traits and injunctions in four different contexts) were divided across eight different pages. In addition, at the end of the questionnaire, Asian Canadian participants completed the measure of cultural identity. The research was approved by the Wilfrid Laurier University Research Ethics Board.

## **Data Analyses**

Missing data were omitted. We used correlation coefficients to quantify within-person consistency because (a) the previous studies of ethnic differences in self-consistency (i.e., English & Chen, 2007; Zhang et al., 2017) had used correlation coefficients, and (b) correlations provide a convenient and intuitive metric for comparing consistency between different pairs of situations (e.g., Is how students act with siblings more similar to how they act with parents or how they act with friends?). Specifically, correlations between a participant's profiles of self-ratings in each pair of situations (i.e., parent-friend, parent-sibling, parent-professor, professor-friend, professor-sibling, and friend-sibling) reflect self-consistency. For example, Stu's parent-friend self-consistency would be the correlation between Stu's ratings of the degree to which he expresses each of the 20 traits (e.g., outspoken, quiet) when with his parents and the degree to which he expresses those same 20 traits when with his friends. Similarly, correlations between a participant's profiles of injunction-ratings reflect injunctive consistency. Correlations between a participant's profile of self-ratings and profile of injunction ratings within each situation reflect self-injunctive consistency.

Finally, we computed noninjunctive self-consistency using a procedure analogous to that used to compute distinctive profile correlations (Furr, 2008). Whereas injunctive norms are the traits people feel they should express, descriptive norms are the traits people typically express. Subtracting the profile of descriptive norms (i.e., trait averages) from an individual's trait profile yields a nonnormative or distinctive trait profile, and correlations between them yield distinctive profile correlations (Furr, 2008). Analogously, subtracting a participant's profile of injunctive norms from a participant's trait profile yields a noninjunctive trait profile (i.e., how much the person expresses each trait more or less than the injunctive norm). Correlations between a participant's noninjunctive trait profiles in each situation reflect noninjunctive self-consistency.

Because the consistency indices were correlation coefficients, we subjected them to Fisher's *r*-to-*z* transformations before com-

Table 2
General Linear Model Analyses of Self-Consistency, Injunctive Consistency, Noninjunctive Self-Consistency, and Self-Injunctive Consistency

	Predictors											
	Context			Ethnicity			Ethnicity × Context					
Outcomes	df	F	p	$\eta_p^2$	df	F	p	$\eta_p^2$	df	F	p	$\eta_p^2$
Injunctive consistency	5,1920	85.82	<.001	.18	1,384	2.45	.118	<.01	5,1920	3.11	.008	.01
Self-consistency	5,1920	137.46	<.001	.26	1,384	8.48	.004	.02	5,1920	7.32	<.001	.02
Noninjunctive self-consistency	5,1915	54.93	<.001	.13	1,383	1.83	.177	<.01	5,1905	.79	.556	<.01
Self-injunctive consistency	3,1152	88.61	<.001	.19	1,384	2.33	.128	<.01	3,1152	.68	.564	<.01

puting descriptive or inferential statistics, but the values reported in the text, tables, and figure were converted back into correlations using z-to-r transformations.

#### Results

The tests of our five hypotheses are reported, in order, below. To test Hypothesis 1 (i.e., injunctive consistency is lower for Asian than European Canadians specifically when comparing injunctions with parents with other injunctions), we subjected injunctiveconsistency coefficients to a general linear model analysis (GLM), with the six pairs of contexts (parent-friend, parent-sibling, etc.) as a within-subjects variable and ethnicity as a between-subjects variable. Table 2 (top row) shows the results; Table 3 (left columns) shows the cell means. There were significant effects of context and Ethnicity × Context, but not ethnicity. To decompose the interaction, we tested the simple effect of ethnicity across each pair of contexts. (Because this involved conducting six separate comparisons, the significance level for these post hoc tests was p < .01). Consistent with Hypothesis 1, compared with Asian Canadians, European Canadians showed greater injunctive consistency across parent and friend contexts, t(384) = 3.88, p < .001and marginally greater injunctive consistency across parent and sibling contexts, t(384) = 1.98, p < .05, but not across friendsibling, friend-professor, and professor-sibling contexts. That is, the discrepancy between the injunctive norms for interacting with parents and injunctive norms for interacting with friends (and, to a lesser degree, siblings) was greater for Asian Canadians than European Canadians. However, inconsistent with Hypothesis 1, the expected ethnic difference was not significant across parentprofessor contexts.

To test Hypothesis 2 (i.e., Asian Canadians are less consistent than European Canadians specifically when comparing behavior with parents with behavior elsewhere), we repeated the above GLM on self-consistency coefficients. Table 2 (second row) shows the results; Table 3 (middle columns) shows the means. There were significant effects of context, ethnicity, and the Ethnicity  $\times$  Context interaction. Consistent with Hypothesis 2, compared with Asian Canadians, European Canadians showed more self-consistency across parent and friend contexts, t(384) = 3.88, and across parent and sibling contexts, t(384) = 4.57, ps < .001, but not across friend–sibling, friend–professor, or professor–sibling contexts. Inconsistent with Hypothesis 2, there was no ethnic difference across parent–professor contexts.

To test Hypothesis 3 (i.e., Asian Canadians showing low injunctive- and self-consistency specifically when comparing interactions with culturally Asian parents with other interactions), we repeated the GLM analyses conducted above on injunctive consistency and self-consistency, but replaced ethnicity with participants' standardized self-Canadian, parent-Canadian, self-Asian, parent-Asian scores. Two effects were significant: The Context × Parent-Canadian interaction predicted both selfconsistency, F(5, 800) = 4.25, p = .001,  $\eta_p^2 = .026$ , and injunctive consistency,  $F(5, 800) = 2.62, p = .023, \eta_p^2 = .016$ . Examining the regression coefficients for each pair of contexts separately, four simple effects were at least marginally significant: Parent-Canadian was positively associated with parent-friend selfconsistency (b = .092, SE = .040, p = .024, squared part correlation  $[sr^2] = .03$ ), parent–friend injunctive consistency (b = .087, SE = .040, p = .030,  $sr^2 = .03$ ), parent–sibling self-consistency  $(b = .156, SE = .051, p = .003, sr^2 = .06)$ , and parent-sibling

Table 3
Self-Consistency, Injunctive Consistency, and Noninjunctive Self-Consistency as Functions of Situation Pairs and Ethnicity

Situation pairs	Injunctive	e consistency	Self-c	onsistency	Noninjunctive self-consistency		
	Asian Canadians M (SD)	European Canadians M (SD)	Asian Canadians M (SD)	European Canadians M (SD)	Asian Canadians M (SD)	European Canadians M (SD)	
Parent-friend	.56 (.43)	.66 (.48)	.49 (.43)	.62 (.47)	.18 (.34)	.19 (.35)	
Parent-sibling	.65 (.48)	.71 (.50)	.56 (.53)	.72 (.53)	.36 (.41)	.42 (.43)	
Parent-professor	.67 (.48)	.70 (.49)	.35 (.44)	.34 (.43)	.09 (.32)	.15 (.33)	
Friend-sibling	.76 (.53)	.77 (.52)	.60 (.49)	.62 (.51)	.26 (.41)	.29 (.37)	
Friend-professor	.52 (.44)	.55 (.44)	.42 (.42)	.49 (.46)	.23 (.30)	.23 (.32)	
Sibling-professor	.53 (.50)	.53 (.43)	.10 (.47)	.20 (.45)	.05 (.30)	.09 (.34)	

injunctive consistency ( $b=.098, SE=.047, p=.039, sr^2=.03$ ). Figure 1 illustrates the estimated impact of parent-Canadian cultural identity on parent–friend and parent–sibling self- and injunctive consistency. Of note, the 95% CIs around the estimated consistency coefficients for Asian Canadians who indicated that their parents' Canadian identity was 1 SD above average (see Figure 1) reliably contained the corresponding consistency coefficient for European Canadians (see Table 3). To summarize, contra Hypothesis 3, consistency was unrelated to parent–Asian; however, supporting Hypothesis 3, the parent–friend and parent–sibling self- and injunctive consistency of Asian Canadians whose parents had a strong Canadian identity were comparable to that of European Canadians, and greater than that of Asian Canadians whose parents did not have strong Canadian identities.

To better understand these effects of parents' Canadian identities, we analyzed Asian Canadians' self-ratings and injunction ratings for each trait separately. We found that parent-Canadian was most strongly correlated with Asian Canadian students being—and believing that their parents approved of their being more outspoken, expressive, casual, carefree, and open-minded when around their parents (all  $rs \ge .20$ ). We also found that Asian Canadians were generally more quiet and less open-minded and carefree with their parents than with their friends, and more quiet and less outspoken, casual, carefree, and expressive with their parents than with their siblings (all ts > 2.4). Since a stronger Parent-Canadian identity predicted Asian Canadians expressing and expecting their parents to approve of their expressing—these same traits, it is understandable why a stronger parent-Canadian identity predicted greater parent-friend/sibling self- and injunctive consistency.

To test Hypothesis 4 (i.e., no ethnic differences in noninjunctive self-consistency), we repeated the preceding GLM, replacing raw self-consistency with noninjunctive self-consistency. Table 2 (third row) shows the results; Table 3 (right columns) shows the means. There was an effect of context, with noninjunctive self-consistency being strongest between parent and sibling contexts and weakest between sibling and professor contexts (see Table 3). However, consistent with Hypothesis 4, there was no effect of ethnicity or the Ethnicity × Context interaction. Thus, European and Asian Canadians were similarly consistent across contexts in their expression of trait levels above or below that dictated by social norms. This finding suggests that the ethnic differences in raw self-consistency reported above were mainly due to ethnic differences in parent–friend and parent–sibling injunctive consistency.

To test Hypothesis 5 (i.e., self-injunctive consistency is similarly strong across groups), we subjected self-injunctive consistency coefficients to GLM, with the four contexts (with parents, siblings, friends, or professors) as a within-subjects variable and ethnicity as a between-subjects variable. Table 2 (bottom row) shows the results. There was a significant effect of context: Participants' trait expressions conformed to trait injunctions more when with friends or professors (M rs = .70 and .75, SDs = .46 and .47) than when with parents or siblings (M rs = .55 and .56, SDs = .50 and .49), perhaps because they permitted themselves to behave more poorly when at home with their families. Consistent with Hypothesis 5, there was no effect of ethnicity or the Ethnicity  $\times$  Context interaction, with all coefficients ranging between .51

and .76, which by convention (Cohen, 1988) are considered strong associations.

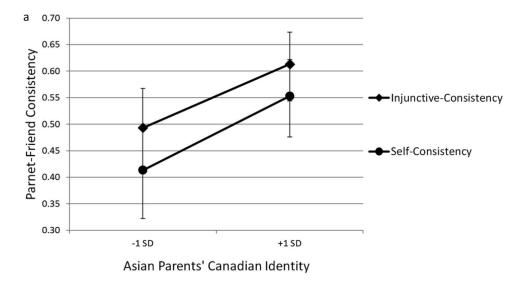
#### Discussion

In accord with previous research (English & Chen, 2007; Zhang et al., 2017), we found greater self-consistency among European Canadians than Asian Canadians. However, in accord with Hypothesis 2, this was specifically a result of Asian Canadians reporting more discrepancies between the traits they expressed with their parents and the traits they expressed with friends or siblings. Asian Canadians were not less consistent than European Canadians across situations in which they were with friends versus siblings versus professors. Any explanations for why European and Asian Canadians differ in self-consistency should therefore address why European and Asian Canadians differ across some social contexts and not others.

The current findings suggest that the key to understanding the ethnic differences in self-consistency are ethnic differences in injunctive consistency. Asian Canadians showed less injunctive consistency than European Canadians across the same contexts in which they showed less self-consistency; specifically, in accord with Hypothesis 1, the divide between how they believed parents wanted them to behave versus how they believed friends and siblings wanted them to behave was greater for Asian Canadians than European Canadians. Notably, in accord with Hypothesis 5, Asian Canadians and European Canadians were equally responsive to the trait injunctions within each situation. However, because the injunctions with parents versus with friends/siblings diverged more for Asian Canadians, the traits expressed with parents versus with friends/siblings diverged more for Asian Canadians. In accord with Hypothesis 4, erasing the influence of injunctions eliminated the ethnic difference in self-consistency: Noninjunctive selfconsistency was no greater for European Canadians than Asian Canadians.

Analyses of the effects of cultural identity provided further evidence that parental attitudes were a key determinant of ethnic differences in consistency. In accord with Hypothesis 3, perceived

<sup>&</sup>lt;sup>1</sup> Although our hypotheses concerned the influence of parents' cultural identities, we also measured and included students' cultural identities in the analyses for two reasons. First, we wished to conduct exploratory tests of potential effects of parent-child "acculturation gaps" (e.g., Shin, Wong, & Maffini, 2016); to do so, we added Self-Canadian × Parent-Canadian and Self-Asian × Parent-Asian interactions to the models, but these interactions explained no additional variance. Second and more importantly, we anticipated that parents' and students' cultural identities might be correlated, which was indeed the case (see Table 1). Consequently, to conclude that the crucial determinant of cross-situational inconsistency was the immigrant parents' cultural identity, we had to control for the students' cultural identity. Conducting the analyses without including Self-Asian and Self-Canadian as covariates strengthened—but otherwise did not alterour key findings. Specifically, repeating the tests of Hypothesis 3 with only Parent-Canadian and Parent-Asian as predictors, there were significant effects of the context × Parent-Canadian interaction on self-consistency, F(5,805) = 5.50, p < .001,  $\eta_p^2 = .033$  and injunctive consistency, F(5,805) = 3.06, p = .001,  $\eta_p^2 = .019$ . Examining the simple effects, Parent-Canadian was positively associated with parent-friend selfconsistency (b = .098, SE = .036, p = .006,  $sr^2 = .05$ ), parent-friend injunctive consistency (b = .096,  $\hat{S}E = .035$ , p = .007,  $sr^2 = .04$ ), parent-sibling self-consistency (b = .164, SE = .045, p < .001,  $sr^2 = .08$ ), and parent-sibling injunctive consistency (b = .096, SE = .041, p = .020,



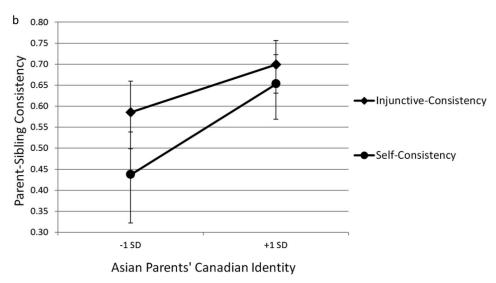


Figure 1. The parent–friend (Panel a) and parent–sibling (Panel b) self-consistency and injunctive consistency of Asian Canadian students as a function of the degree to which their parents are reported to have a Canadian cultural identity. The error bars show the 95% CIs for predicted consistency correlations at  $\pm 1$  SD from the Parent-Canadian mean.

parental Canadian cultural identity was positively associated with self-consistency and injunctive consistency across parent-versus-friend and parent-versus-sibling contexts. Indeed, self-consistency and injunctive consistency among Asian Canadians whose parents strongly identified with Canadian culture was equivalent to that among European Canadians. Analyses on individual items revealed that the more students perceived their parents as embracing a Canadian identity, the more the students behaved—and believed their parents approved of their behaving—casual, expressive, outspoken, open-minded, and carefree around them, which are also the kind of traits students were apt to express with their friends and siblings. We found it interesting that students' own identification with Asian or Canadian culture was unrelated to self-consistency, which suggests that when they were in social situations, injunctive norms (e.g., their parents' approval when with parents, their

friends' approval when with friends) were the more salient and potent determinants of behavior.

Although our hypotheses were largely supported, there were also several ways in which the results did not fit our predictions. First, in accord with Hypothesis 3, Asian Canadians showed more consistency if their parents had a stronger Canadian cultural identity; however, contrary to Hypothesis 3, they did not show less consistency if their parents had a stronger Asian cultural identity. Exploring this asymmetry in the impact of parents' identification with their heritage culture versus their adoptive culture may prove an interesting avenue for future research.

Second, Hypotheses 1 and 2 predicted ethnic differences in consistency "when comparing behavior in parent-child interactions with behavior in other types of interactions." Although that was true when we compared behavior with parents versus with

friends or siblings, it was not true when we compared behavior with parents versus with professors. Although this lack of ethnic difference in parent–professor consistency was not hypothesized, in retrospect it does make sense: If Asian Canadians are particularly apt to think they should and do behave formally around parents, and both Asian and European Canadians think they should and do behave formally around professors but not peers, then Asian Canadians' trait injunctions/expressions with parents would be more distinct from their trait injunctions/expressions with peers than their trait injunctions/expressions with professors.

A related but broader caveat is that if ethnic differences in injunctive consistency explain ethnic differences in self-consistency, then differences in self-consistency should not exceed differences in injunctive consistency; yet, in our data, they did. Indeed, averaging across all contexts, whereas self-consistency was significantly lower for Asian Canadians than European Canadians, injunctive consistency was not. This suggests that other factors, in addition to explicit injunctions, contribute to ethnic differences in self-consistency. For example, even if Asian-immigrant and European Canadian parents desire similar levels of talkativeness and expressiveness from their children, the children of some Asian immigrants may be less talkative and expressive around their parents as a result of having to switch to not speaking English with their parents or to their history of experiencing authoritarian parenting.

The previously proposed theories of cultural differences in self-consistency, which emphasize how culture can shape the nature of the self, may help explain why ethnicity influenced self-consistency more than injunctive consistency. One such theory is that Asian cultures foster collectivistic values and interdependent selves that are unusually responsive to the injunctive norms within each situation (Markus & Kitayama, 1991; Suh, 2002). As noted earlier, English and Chen (2007) suggested that this explanation fit their finding that Asian Americans were more likely than European Americans to express different traits with friends/acquaintances than with family members. However, if Asian Americans are socialized to be generally more responsive to others and accepting of inconsistency, it is unclear why English and Chen did not find them to be less consistent than European Americans across different college situations (e.g., discussion section, party), as each of those situations also requires expressing different behaviors to fit in and get along with others. Moreover, if Asian Americans/Canadians are more responsive than European Americans/Canadians to social norms, then it is unclear why in our study self-injunctive consistency (i.e., the correlation between trait injunctions and trait expressions within each social role) was not greater for Asian Canadians than European Canadians. Thus, ethnic differences in the degree to which the self is responsive to and interdependent with others cannot alone explain the observed pattern of ethnic similarities and differences in consistency.

Another explanation for cultural differences in self-consistency is that individuals who hold the dialectical lay beliefs prevalent in Asian cultures are more open to conceptualizing themselves as inconsistent across situations (Spencer-Rodgers et al., 2010; Zhang et al., 2017). Although naïve dialecticism has not been used to explain cultural differences in injunctive consistency, presumably the same argument could be made—namely, that individuals who hold dialectical lay beliefs are more open to perceiving injunctions as varying across situations. However, a naïve dialecticism expla-

nation of the current results is also limited in several ways. First, naïve dialecticism cannot explain why there are ethnic differences in consistency across some situations but not others. Second, because both Asian and European Canadians described themselves as showing minimal behavioral consistency across certain pairs of situations (e.g., with professors vs. with family members), there was no evidence that European Canadians were characterized by a general resistance to acknowledging inconsistencies. Third, neither the dialectical-self nor the interdependent-self explanation can explain why consistency would be associated with a parent's cultural identity, but not a participant's cultural identity. In sum, the dialectical- and interdependent-self explanations of ethnic differences in consistency can complement the injunctive-norm explanation, but in themselves are incomplete.

## Limitations

One limitation of our study is that, although we assessed Asian Canadians' Asian and Canadian cultural identities, we did not assess their "bicultural identity integration" (Benet-Martínez & Haritatos, 2005; Nguyen & Benet-Martínez, 2007). Individuals high in bicultural identity integration experience their ethnic heritage culture and mainstream culture as compatible and complementary; in contrast, individuals low in bicultural identity integration experience their cultural identities as conflicting, and may react by rejecting or avoiding one culture or the other. Among Latino Americans, a positive association has been found between identity integration and the perceived overlap between their own personalities and the personality profiles of the typical Latino and typical American (Miramontez, Benet-Martínez, & Nguyen, 2008). And among Chinese Canadians a positive association has been found between an integrated bicultural identity and expressing similar traits with a European Canadian close friend and a Chinese Canadian close friend (Zhang et al., 2017, Study 1). Given these intriguing preliminary findings, further research on the relationship between bicultural identity integration and selfconsistency could prove informative.

Another limitation is that only a small minority of our Asian Canadian students' parents were from Japan or Korea (most were from South or Southeast Asia). This matters because, arguably, the only robust replicable between-country difference in selfconsistency is that self-consistency is lower in Japan and Korea than in other countries, including other Asian countries (e.g., Church et al., 2012; Locke et al., 2017; Suh, 2002). If low selfconsistency in Japan and Korea reflects the impact of naïve dialecticism in those countries, and naïve dialecticism continues to influence second-generation Japanese and Koreans, then they may show lower self-consistency than other second-generation Asian immigrants. On the other hand, recent research suggests that the low self-consistency among East Asians is due to low selfinjunctive consistency (Locke et al., 2017), which is more likely due to cultural differences in self-enhancement (Locke, 2006; Gage, Coker, & Jobson, 2015) than cultural differences in dialecticism.

A broader limitation is that all our participants were Asian and European Canadian undergraduates from one university. Research on other populations is necessary to clarify whether the current findings generalize to other immigrant groups, other countries, other life stages, and so on. For example, second-generation immigrants attending a liberal arts university may be more acculturated and less traditional than those not attending college. Indeed, ironically, Asian Canadians' efforts to meet unusually strong parental expectations for achievement may often be what propels them into educational and professional environments where the social norms are different from those they experience at home with their parents.

Finally, every method of defining and operationalizing consistency has strengths and weaknesses. Profile correlations ignore absolute levels of trait endorsements (e.g., Are a person's trait expressions moderate or extreme?) and cannot reveal how consistency might vary across traits (e.g., Is openness more cross-situationally consistent than extraversion?). However, precisely because they ignore response elevation and variations between traits, profile correlations offer a concise, interpretable, generalizable index of the degree to which—across sundry traits—individuals consistently endorse certain traits more than others. Therefore, because our hypotheses concerned consistencies in patterns of endorsing certain traits more than others, our study and most other self-consistency studies relied on profile correlations (or analogous coefficients derived from regression models which included trait as a random variable; Locke et al., 2017).

## Conclusion

Replicating previous studies, in the current study, we found less cross-situational self-consistency among Asian Americans/Canadians than European Americans/Canadians. In addition, though, our results indicated that Asian Americans/Canadians and European Americans/ Canadians differed not in their concern with meeting others' expectations, but in what others—especially parents—expected of them. Specifically, the ethnic differences in self-consistency largely reflected Asian Canadians expressing different traits with parents than with peers because they believed that their peers wanted them to express different traits than their parents did, especially if their parents were less acculturated. More broadly, cultural influences on basic cognitive or motivational frameworks (e.g., dialectical worldviews, collectivistic values, and interdependent selves) alone may not be sufficient to explain the observed pattern of similarities and differences in consistency. Instead, understanding when and where bicultural individuals show less cross-situational consistency also requires an understanding of the situations across which they face divergent social norms.

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