

# Self-Construals in Situational Context: Disaggregating Behaviours and Intentions Using Sinha et al.'s (2002) Decision-Making Scenarios

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**Abstract** The present study examined the influence of independent and interdependent self-construals and social context on decision-making using a set of hypothetical scenarios. Following the methodology of Sinha et al. (J Psychol 37(5):309–319, 2002. <https://doi.org/10.1080/00207590244000124>), a sample of Canadian undergraduate students was presented with 16 decision-making scenarios. Scenarios were divided into two clusters depending on interaction target: nine scenarios related to conflict between personal needs versus family and friends, and seven scenarios related to conflict between personal needs versus community or society. Participants were asked to choose one of five responses: collectivist behaviour with collectivist intent, individualist behaviour with individualist intent, collectivist behaviour with individualist intent, individualist behaviour with collectivist intent, or a mix of collectivist and individualist behaviours and intentions. Participant self-construal was measured orthogonally using Singelis' (Personal Soc Psychol Bull 20(5):580–591, 1994) Self-Construal Scale. The results suggest that a complex mix of self-concept, situation, and interaction target influenced participant behaviours and intentions. Biggest differences were observed between participants who scored high on one construal and low on the other: those who were more independent were more likely to choose individualist behaviours and intentions, and those who were more interdependent tended to choose more collectivist options. Interdependent self-construal was found to curtail

individualist intentions, but not behaviour. Both independent and interdependent participants made collectivist choices towards family and friends as opposed to the greater community. The results have implications for studying the influence of self-concept and cultural norms on behaviour.

**Keywords** Self-construal · Situation/context · Social cognition · Interpersonal influences · Cultural norms · Behaviours and intentions

## Introduction

In a unique approach to understanding individualism and collectivism in context, Sinha et al. (2002) conducted a study in India assessing both behavioural intentions and the underlying rationale for those behaviours in a variety of circumstances. Sinha and colleagues suggest that although India is a collectivist culture with collectivist social norms, Indian people balance personal needs and those of the group by combining both independent and interdependent orientations, and that these tendencies manifest themselves differently in different contexts. In other words, they argued for a dynamic view of collectivism as applied to behaviour and intentions. In their study, they examined the decision-making of 292 Indian participants using a set of hypothetical scenarios in order to separate the outward behaviour judgement from the rationale for that behaviour, suggesting that behaviour is not always as it seems on the surface; the rationale behind an individualist behaviour may actually be a collectivist intention. Specifically, their research suggests that whether an individual acts in an individualist or collectivist manner depends on the types of others that are involved in the situation. For example,

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Indian participants made decisions that reflected collectivist behaviours and intentions more often in situations that involved family and friends, and showed individualist intentions when the situation pitted personal goals against collective goals.

The present study follows and extends the approach taken by Sinha et al. (2002) to examine the interplay between individualism–collectivism and intentions and behavioural choices in different life situations. The original research, undertaken in India, measured whether participants in a collectivist culture made collectivist behavioural decisions and whether they based those decisions on individualist or collectivist intentions. The present study extends this line of thinking by proposing that intentions are reflective of values, and will therefore match with the individual's self-construal. Behaviours, on the other hand, are more likely to be in line with cultural and situational norms and thus more likely to reflect the influence of cultural context. The current research examined these questions in a Canadian context, an individualistic culture (Hofstede, 2001). Results from the present study are compared and contrasted with Sinha et al.'s findings.

### Self-Construal in Context

Individualism is the cultural orientation that conceptualizes individuals as independent of one another, with a focus on personal rights above duties, concern for the self, immediate family, personal autonomy, and self-fulfilment. The self is construed as stable across contexts, and relationships with others are perceived as contractual and group membership as impermanent (Oyserman, Coon, & Kemmelmeier, 2002). In collectivist societies, on the other hand, the group bond is viewed as permanent and stable; individuals within a group are considered mutually bound, which in turn creates stable boundaries with outgroups. The self is understood as a distinct entity (Markus & Kitayama, 1991), but the role of the self as a member of the group is a central aspect of that identity and makes social context a prominent fixture in reasoning and meaning making (Oyserman et al., 2002). Oyserman & Lee (2008) and Oyserman (2011) suggests that all individuals have both independent and interdependent self-construals available to them.

Although individuals may have a predominant or habitual self-construal, at any given point in time specific self-construals are made salient by situational circumstances, thereby influencing how people perceive situations, and the course of action they choose to take. Situational factors such as who the individual is interacting with, context, time frame and specificity play a key role in determining which values are activated and acted upon (Sheppard, Hartwick, & Warshaw, 1988) by indicating

whether it is more appropriate to focus on individualist or collectivist goals (Brewer & Gardner, 1996). Research suggests those with a predominantly interdependent self-construal appear to be more sensitive/attuned to the prevalent situational norms. These persons change their perceptions and behaviours depending on the situation and may appear to behave in either an individualist or collectivist manner as they believe the situation warrants. Those with an independent self-construal, on the other hand, are thought to be more consistent across situations and to make more frequent use of fundamental attributions (Choi, Nisbett, & Norenzayan, 1999).

In light of the fact that individuals may appraise the situation and act in line with behavioural and normative expectations even if it may conflict with their values, it is likely that individuals use a combination of individualist and collectivist behaviours and intentions to meet both personal and collective needs. For example, a person may have an interdependent self-construal with a strong sense of obligation to the family and yet choose to move away from home for a good job. While on the surface, this may seem like an individualistic behaviour, the intention may actually be to serve the family in order to have a higher income and to provide for parents in the future and to make them proud. Therefore, it is important to disaggregate behaviours and intentions, as it may be difficult to tell from behaviour alone whether the value or intent is collectivist or individualist.

*Hypothesis 1:* Participant intentions and behaviour judgements will vary depending on their self-construal.

*1a:* Participants with high independent self-construal would choose individualist intentions more frequently, while those with high interdependent self-construals would choose collectivist intentions more frequently.

*1b:* Participants in an individualistic context would endorse individualistic behaviours more than collectivistic behaviours.

### Behaviours and Intentions Across Interaction Targets

When it comes to decision-making, the target of the interaction plays an important role in determining behaviour. For both self-construals, special treatment extends primarily to the ingroup and not the outgroup (Oyserman et al., 2002). For example, a study with Anglo Canadians found that although Canadians endorse more individualistic values than Chinese or Indians overall, when broken down by relationship dimensions, they endorsed collectivistic values to the same extent as Chinese with respect to closest friends (Li, Zhang, Bhatt, & Yum, 2006). However, individuals with independent self-construals tend to be

more focused on personal goals, put greater emphasis on personal consistency, and do not focus as much on ingroup/outgroup distinction as their social ties are weaker and they can join and leave in groups with greater ease (Triandis, 1995). Even though they care deeply about their closest family and friends, research would suggest that they are more likely to choose individualistic behaviour across different types of situations and regardless of target. Individuals with interdependent self-construal on the other hand have a higher focus on family integrity, fulfilling their social role, have sharper ingroup/outgroup distinction, and are more attuned to the situation. As they are much more invested in their ingroup relationships, it is likely that intentions and behaviours have to be carefully considered to include collective needs. Outgroup members are more distant to those with interdependent self-construals and are likely to evoke individualist behaviours and intentions.

*Hypothesis 2:* Participants' intentions and behaviours will vary depending on self-construal and relationship with the situation target.

*2a:* Participants high on interdependent self-construal would choose collectivist intentions in situations relating to family and friends and individualist intentions towards strangers/community.

*2b:* Participants high on independent self-construal would choose individualist intentions and behaviours across all types of relationship targets.

## Present Study

The present study continues a line of research started by Sinha et al. (2002). They explored individualist and collectivist intentions and behaviours in India using a set of 20 scenarios representing various social dilemmas. These scenarios were divided into three clusters: (1) personal interests versus family/friend interests, (2) personal versus contractual relationship, and (3) personal versus collective actions. Each scenario allowed the participant to choose one of five responses: collectivist behaviour with collectivist intent (CC), individualist behaviour with individualist intent (II), collectivist behaviour with individualist intent (CI), individualist behaviour with collectivist intent (IC), and a mix of collectivist and individualist behaviours and intention (C&I).

The present study sought to explore how participants respond to the same types of dilemmas in a Canadian (individualist) context. Canada is a multicultural society composed of Indigenous cultures, European settlers, and 200 distinct ethnicities (Statistics Canada, 2006). As many of its immigrants originally come from collectivist cultures, Canada is a good place to examine how participants with diverse self-construals adapt to the general

individualistic social climate and whether the varying levels of relationship distance influence behaviours and intentions.

## Methods

### Participants

Data were collected from psychology undergraduate students at a Canadian university in southern Ontario ( $n = 151$ ). Participants completed a paper and pencil questionnaire for course credit. Participant age ranged from 18 to 48 years, with a mean of 21.3 ( $SD = 3.94$ ). One hundred and thirty-four participants indicated they were born in Canada, while 43 described themselves as "Canadian". Ninety-two (60.9%) participants described themselves as Caucasian, two participants were black/African, one Hispanic/Latino, two Native Canadian, four Asian, one Arabic, 39 (25.8%) were of mixed race, and 10 participants (6.6%) selected "other". In terms of immigrant generation, 5.3% indicated that they were first-generation immigrants, 6.6% were 1.5 generation, 25.8% were second generation, and 60.3% were third generation or more.

### Measures

*Individualist Collectivist Behaviours Intentions Scale (Self): Canadian (ICBI-C, Kwantes, Ali, Kuo, & Towson, 2007a)*

A measure adapting Sinha et al.'s (2002) scenarios for the Canadian context was used in this research (ICBI-C; Kwantes, Ali, Kuo, & Towson, 2007a, b). This measure adapted scenarios from the Indian context to the Canadian context where scenarios could not be directly applied. For example, in the original ICBI, one scenario asked respondents what they would do if their parents had selected a spouse for them but they wished to marry a different person. As this scenario is unlikely to occur in the Canadian context, the scenario dilemma was amended to reflect a situation where the individual has selected her or his spouse, but the parents disapproved. There has been increasing support for the use of hypothetical scenario-based measurements in cross-cultural psychological research (see Kuo, Roysircar, & Newby-Clark, 2006 for an example). Using scenarios in psychological assessments increases uniformity of the stimuli to which participants respond (Schwarzer & Schwarzer, 1996) and is thus superior to rating scales because it minimizes cultural and linguistic variability in values and meaning (Peng, Nisbett, & Wong, 1997).

The scenarios used in the current study involved two types of relationship targets: (1) personal needs versus

family/friends (e.g. “You want to marry but your parents don’t approve of your partner” 9 scenarios) and (2) personal versus community/society (e.g. “How should a community share government relief funds after a storm?” 7 scenarios). Sinha et al. (2002) were concerned that responses to the scenarios in the latter cluster would be subject to social desirability, so they framed those scenarios in a normative way (i.e. “What would most people do?”). Researchers suggest that responses to normative questions are more accurate reflections of how individuals themselves would reason through a situation projected onto other people (Ayca, Kanungo, & Sinha, 1999). The Canadian questionnaire asked participants both individual and normative versions for all scenarios. Unless otherwise indicated, the individually framed scenarios were used in statistical analyses. Multiple-choice questions were used for each scenario with five alternative responses: collectivist behaviour with collectivist intent (CC), individualist behaviour with individualist intent (II), collectivist behaviour with individualist intent (CI), individualist behaviour with collectivist intent (IC), and a mix of collectivist and individualist behaviours and intention (C&I). A sample scenario includes:

You are working in one town and your parents live in another town. Your father has just retired from his job. What will you do?

- You will encourage your parents to live at your place so that you will save money for your own use in the future (II)
- You will encourage them to stay at their own place so they can continue living with their friends and their neighbours (IC)
- You will encourage your parents to live at your place so that you can all live together (CC)
- You will encourage them to stay at their own place so that you are not inconvenienced (CI)
- You will encourage them to stay at their own place and go spend quality time with them enjoying their company (C&I)

#### *Self-Construal Scale (SCS, Singelis, 1994)*

This measure consists of two subscales and uses a 7-point Likert-type scale that ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). The Interdependent Self-Construal Subscale included 17 items about collectivist personal values, such as “I respect people who are modest about themselves”. The subscale reliability for this sample was  $\alpha = 0.67$ . The Independent Self-Construal Subscale included 15 items that measure individualist values with items such as “I am comfortable with being singled out for

praise or reward”. The subscale reliability for this sample was  $\alpha = 0.69$ . A high score on either of the scales indicates endorsement of the respective self-construal. Given the goals of this particular project to examine both self-construals simultaneously, this measure was appropriate as the subscales are measured orthogonally.

Participants also completed a demographic questionnaire.

## Results

Participants chose a mixed intention and behaviour (C&I) strategy most frequently (7 out of 16 scenarios), and collectivist behaviour and intent (CC) was the second most frequent choice (4 out of 16 scenarios). Two scenarios elicited a purely individualist response (II), and the other two options (IC and CI) were each preferred once. Collapsing across scenarios, participants reported greater collectivist ( $M = 7.44$ ,  $SD = 1.90$ ) than individualist intentions ( $M = 4.91$ ,  $SD = 1.82$ ),  $t(150) = 33.21$ ,  $p < 0.001$ . Participants also showed an overall preference for collectivist ( $M = 6.97$ ,  $SD = 1.84$ ) over individualist behaviours ( $M = 5.38$ ,  $SD = 1.84$ ),  $t(150) = 36.03$ ,  $p < 0.001$ .

## Hypothesis Testing

### *Hypothesis 1: Self-Construal in Context*

It was expected that independent participants would choose individualist intentions and behaviours more than interdependent participants. In order to compare different self-construals participants were divided into four construal groups based on a median split for each of the SCS subscales: (1) high independence (I)/high interdependence (C) ( $N = 40$ ), (2) low I/high C ( $N = 39$ ), (3) high I/low C ( $N = 37$ ), and (4) low I/low C ( $N = 35$ ). The results of the ANOVA found significant differences between the four groups (see Table 1 for an overview of response patterns).

*Intentions* The frequency with which the participants endorsed individualist or collectivist intentions across the scenarios was compared across the four self-construal groups. There were significant differences between groups for both individualist and collectivist but not mixed intentions. Post hoc contrasts revealed significant differences for individualist intentions between high I/high C ( $M = 4.65$ ,  $SD = 1.69$ ) and high I/low C ( $M = 5.81$ ,  $SD = 1.77$ ) groups,  $t(37) = -1.16$ ,  $p < 0.05$  as well as between high I/low C ( $M = 5.81$ ,  $SD = 1.77$ ) and low I/high C ( $M = 4.33$ ,  $SD = 1.91$ ) groups,  $t(37) = 1.48$ ,  $p < 0.01$ . These results suggest that independent self-construal increases individualist intention, while

**Table 1** Behaviour and intentions by self-construal

	Self-construal groups <i>M</i> (SD)				Total	<i>F</i> (3, 147)
	High I/high C	Low I/high C	High I/low C	Low I/low C		
I behaviour (II & IC responses)	5.57 (1.71)	4.67 (1.47)	6.22 (1.95)	5.08 (1.9)	5.38 (1.84)	4.97**
C behaviour (CC & CI responses)	6.88 (1.86)	7.64 (1.63)	6.41 (1.48)	6.94 (2.18)	6.97 (1.84)	3.34*
Mixed behaviour (C&I)	5.55 (1.65)	5.69 (1.56)	5.38 (1.93)	5.97 (2.12)	5.64 (1.81)	0.69
I intent (II & CI responses)	4.65 (1.69)	4.33 (1.91)	5.81 (1.77)	4.91 (1.6)	4.91 (1.82)	5.41***
C intent (CC & IC responses)	7.8 (1.73)	7.97 (1.90)	6.81 (1.82)	7.11 (2.0)	7.44 (1.9)	3.06*
Mixed intent (C&I)	5.55 (1.65)	5.69 (1.56)	5.38 (1.93)	5.97 (2.12)	5.64 (1.81)	0.56

Descriptives based on frequency counts of response type

\*significant at the 0.05 level

\*\*significant at the 0.01 level

interdependent self-construal curtails it. Post hoc contrasts also revealed a significant difference for collectivist intentions between the low I/high C ( $M = 7.97$ ,  $SD = 1.90$ ) and high I/low C ( $M = 6.81$ ,  $SD = 1.82$ ) groups,  $t(37) = 1.16$ ,  $p < 0.05$ , indicating that interdependent self-construal affected likeliness to endorse collectivist intentions. Hypotheses 1a was therefore supported.

**Behaviours** The frequency with which the participants endorsed individualist or collectivist behaviours across the scenarios was compared across the four self-construal groups. The results suggest significant differences between groups on both individualist and collectivist behaviours, but not when it comes to mixed behaviours. Post hoc contrasts revealed that there were significant differences for individualist behaviours between the low I/high C group ( $M = 4.67$ ,  $SD = 1.47$ ) and high I/low C group ( $M = 6.22$ ,  $SD = 1.95$ ),  $t(37) = -1.55$ ,  $p < 0.001$  as well as high I/low C ( $M = 6.22$ ,  $SD = 1.95$ ) and low I/low C ( $M = 5.08$ ,  $SD = 1.90$ ),  $t(37) = 1.13$ ,  $p < 0.05$  groups. Participants who were high on independent self-construal endorsed individualist behaviours more frequently than those who scored low on this self-construal (regardless of how they scored on the interdependent self-construal). Post hoc contrasts also revealed a significant difference between groups in frequency of choosing collectivist behaviour. There was a significant difference between the low I/high C ( $M = 7.64$ ,  $SD = 1.63$ ) group and the high I/low C ( $M = 6.41$ ,  $SD = 1.48$ ) group,  $t(37) = 1.24$ ,  $p < 0.05$ , suggesting that participants who scored high on interdependent self-construal were more likely to choose collectivist behaviour than those who were high on independent self-construal. These findings provide only partial support for Hypothesis 1b.

#### Hypothesis 2: Self-Construal and Interaction Target

It was expected that participants with high interdependent self-construal would choose collectivist intentions

in situations relating to family and friends, and individualist intentions towards strangers/community. Participants with high independent self-construals were expected to choose individualist intentions and behaviours across all situations. The scenarios pertained to two clusters: *Cluster 1* included scenarios about conflict between personal interests versus family and friends; *Cluster 2* included scenarios about conflict between personal versus the needs of the greater community.

Table 2 shows the response pattern to the ICBI-C items. The results partially support the second hypothesis: individuals with interdependent self-construals were found to be more likely to choose collectivist intentions towards family and friends, and those with independent self-construals were more likely to endorse individualist behaviour and intentions. The data from the individual version of the questionnaire do not support the hypothesis that both self-construals would endorse individualist behaviours and intentions towards the larger community. However, the normative version of the scenarios does support this hypothesis.

**Cluster 1: Situations Involving Friends and Family** Cluster 1 contains 9 scenarios that depict conflict between personal needs versus family and friends. Participants across self-construal groups chose C&I most frequently (4/9), and CC were the second most frequent (2/9). Self-construal groups significantly differed on three scenarios in this cluster. The first scenario asked what the participant would do if they wanted to marry, but their parents did not approve of their partner. There was a significant difference between groups of behaviour endorsed,  $\chi^2 = 13.15$ ,  $p < 0.05$ . The majority of participants in high I/high C and high I/low C groups endorsed individualist behaviour (marry whomever I want). Participants in the low I/high C and low I/low C groups were split between individualist and collectivist behaviour (marry who parents approve or try to persuade them). The majority of



**Table 2** Response frequencies by scenario and cluster

Scenario	Construal group	I beh. (%)	C beh. (%)	Mixed beh. (%)	$\chi^2$	I intent (%)	C intent (%)	Mixed intent (%)	$\chi^2$
<i>Cluster 1: Personal versus family/friends</i>									
1. You want to marry; parents don't approve	High I/high C	65.0	22.5	12.5	13.15*	30.0	57.5	12.5	6.92
	Low I/high C	46.2	43.6	10.3		35.9	53.8	10.3	
	High I/low C	75.7	21.6	2.7		32.4	64.9	2.7	
	Low I/low C	51.4	45.7	2.9		48.6	48.6	2.9	
2. You work in another town; parents retire	High I/high C	27.5	12.5	60.0	4.38	2.5	37.5	60.0	7.61
	Low I/high C	38.5	5.1	56.4		0.0	43.6	56.4	
	High I/low C	35.1	2.7	62.2		10.8	27.0	62.2	
	Low I/low C	28.6	5.7	65.7		5.7	28.6	65.7	
3. You have two job offers, one close to parents, better one far away	High I/high C	45.0	15.0	40.0	5.78	37.5	22.5	40.0	7.68
	Low I/high C	46.2	20.5	33.3		51.3	15.4	33.3	
	High I/low C	59.5	8.1	32.4		59.5	8.1	32.4	
	Low I/low C	51.4	5.7	42.9		51.4	5.7	42.9	
4. You are going to job interview; friend in accident needs blood	High I/high C	2.5	77.5	20.0	8.31	2.5	77.5	20.0	12.36*
	Low I/high C	0.0	89.7	10.3		0.0	89.7	10.3	
	High I/low C	5.4	67.6	27.0		8.1	64.9	27.0	
	Low I/low C	2.9	65.7	31.4		0.0	68.6	31.4	
5. Most important goal in life	High I/high C	35.0	22.5	42.5	15.91**	32.5	25.0	42.5	15.68*
	Low I/high C	12.8	25.6	61.5		12.8	25.6	61.5	
	High I/low C	45.9	21.6	32.4		45.9	21.6	32.4	
	Low I/low C	14.3	22.9	62.9		14.3	22.9	62.9	
6. How should you and step-sibling share home care expenses for your ailing mother?	High I/high C	15.0	82.5	2.5	1.45	25.0	72.5	2.5	1.88
	Low I/high C	10.3	87.2	2.6		17.9	79.5	2.6	
	High I/low C	13.5	86.5	0.0		21.6	78.4	0.0	
	Low I/low C	14.3	82.9	2.9		25.7	71.4	2.9	
7. Your parents want a grandchild, but you and spouse want to wait	High I/high C	77.5	20.0	2.5	3.84	30.0	67.5	2.5	4.73
	Low I/high C	71.8	25.6	2.6		30.8	66.7	2.6	
	High I/low C	86.5	13.5	0.0		45.9	54.1	0.0	
	Low I/low C	77.1	22.9	0.0		42.9	57.1	0.0	
8. Your father dies and no one can take over the business, but you have other job prospects	High I/high C	2.5	30.0	67.5	11.78	2.5	30.0	67.5	6.66
	Low I/high C	2.6	35.9	61.5		12.8	25.6	61.5	
	High I/low C	13.5	16.2	70.3		13.5	16.2	70.3	
	Low I/low C	0.0	28.6	71.4		14.3	14.3	71.4	
9. Relatives come to stay with you	High I/high C	35.0	10.0	55.0	3.06	0.0	45.0	55.0	5.17
	Low I/high C	32.1	7.7	69.2		0.0	30.8	69.2	
	High I/low C	27.0	10.8	62.2		2.7	35.1	62.2	
	Low I/low C	37.1	5.7	57.1		0.0	42.9	57.1	
<i>Cluster 2: Personal versus collective needs</i>									
10. You are a car salesperson; your friend wants to buy a car	High I/high C	10.0	90.0	0.0	4.58	30.0	70.0	0.0	5.25
	Low I/high C	7.7	89.7	2.6		15.4	82.1	2.6	
	High I/low C	2.7	97.3	0.0		21.6	78.4	0.0	
	Low I/low C	8.6	91.4	0.0		25.7	74.3	0.0	
11. You have a heart problem: go to your friend who is a doctor or specialist?	High I/high C	15.0	15.0	70.0	1.83	22.5	7.5	70.0	2.5
	Low I/high C	10.3	12.8	76.9		15.4	7.7	76.9	
	High I/low C	18.9	16.2	64.9		21.6	13.5	64.9	
	Low I/low C	11.4	14.3	74.3		20.0	5.7	74.3	

**Table 2** continued

Scenario	Construal group	I beh. (%)	C beh. (%)	Mixed beh. (%)	$\chi^2$	I intent (%)	C intent (%)	Mixed intent (%)	$\chi^2$
12. Reason to start business with a group of people	High I/high C	32.5	27.5	40.0	2.15	27.5	32.5	40.0	11.03
	Low I/high C	28.2	17.9	53.8		12.8	33.3	53.8	
	High I/low C	27.0	21.6	51.4		37.8	10.8	51.4	
	Low I/low C	25.7	25.7	48.6		20.0	31.4	48.6	
13. Neighbour's house burned down, what would you do?	High I/high C	2.5	82.5	15.0	2.3	2.5	82.5	15.0	3.35
	Low I/high C	0.0	89.7	10.3		0.0	89.7	10.3	
	High I/low C	2.7	89.2	8.1		0.0	91.9	8.1	
	Low I/low C	2.9	88.6	8.6		2.9	88.6	8.6	
14. Who will you vote for to be mayor?	High I/high C	0.0	7.5	92.5	5.65	0.0	7.5	92.5	6.06
	Low I/high C	2.6	12.8	84.6		0.0	15.4	84.6	
	High I/low C	8.1	13.5	78.4		2.7	18.9	78.4	
	Low I/low C	8.6	11.4	80.0		0.0	20.0	80.0	
15. How to share government relief funds after storm	High I/high C	10.0	82.5	7.5	8.11	2.5	90.0	7.5	15.30*
	Low I/high C	5.1	89.7	5.1		2.6	92.3	5.1	
	High I/low C	24.3	70.3	5.4		21.6	73.0	5.4	
	Low I/low C	8.6	82.9	8.6		2.9	88.6	8.6	
16. How to split bill at restaurant with friends	High I/high C	65.0	15.0	20.0	9	57.5	22.5	20.0	13.75*
	Low I/high C	74.4	15.4	10.3		64.1	25.6	10.3	
	High I/low C	70.3	5.4	24.3		73.0	2.7	24.3	
	Low I/low C	60.0	5.7	34.3		51.4	14.3	34.3	

\*significant at the 0.05 level

\*\*significant at the 0.01 level

participants in all groups endorsed collectivist intent for their preferred behaviour (important to keep the parents pleased/they care about your well-being), with the exception of the low I/low C group who were split evenly between individualist (my life, my choice) and collectivist intent.

The second scenario asked what one would do if they were on their way to an important job interview when they found out that their friend was in an accident and needed blood. Overall the majority of participants across all self-construal groups endorsed collectivist behaviour (go to the hospital to donate blood) and collectivist intention (family and friend considerations). However, a third of participants from the high I/low C and low I/low C groups picked mixed intentions (ask someone else to donate blood so one can still go to the interview). This difference in intentions between the groups was significant,  $\chi^2 = 12.36$ ,  $p < 0.05$ .

The third scenario asked participants what is the most important goal in life. Differences were observed in both endorsed behaviours,  $\chi^2 = 15.91$ ,  $p < 0.01$ , and intentions,  $\chi^2 = 15.68$ ,  $p < 0.01$ . The majority of participants in the two construal groups that scored low in independent self-construals (low I/high C and low I/low C) endorsed mixed behaviour (maintaining balance between personal and family needs). Participants in high I/low C group were

most likely to endorse individualist behaviour to improve self or achieve things (II & IC). The high I/high C group was split between the two options. The pattern of intentions was the same as the behavioural endorsement.

*Cluster 2: Personal Versus Collective Needs* This cluster included seven scenarios that address personal needs versus the community. Contrary to the prediction that both independent and interdependent self-construals would endorse individualist interactions with community, participants were most likely to endorse C&I in 3 out of 7 scenarios: (1) select your friend doctor or a specialist about a medical problem, (2) reason to start a community business with others, (3) whom to vote for. The rate of agreement for whom to vote for was extremely high among all groups, with more than 78% of participants picking a candidate based on merit and benefit to community. The scenario about starting a community business had the lowest rate of agreement among participants, so while the majority picked mixed behaviours and intentions (make money for oneself as well as help the community), there was significant variability in behaviour and intentions that participants chose.

Respondents also endorsed collectivist behaviours and intentions in three scenarios: (1) you're a salesman and a

friend wants to buy a car from you, (2) your neighbour's house burns down, (3) how to share government relief funds after a storm. In two of these scenarios, the rate of agreement between participants was extremely high, between 70 and 97%. Self-construal groups significantly differed in their intentions to the scenario about sharing government relief funds. While in all groups, the majority endorsed collectivist intentions (getting enough funds for everyone), the group that scored high on only interdependent self-construal was much more likely to endorse fair sharing (92.3%) than the group that was high only on independent self-construal (73%),  $\chi^2 = 15.30$ ,  $p < 0.05$ .

Participants endorsed individualist behaviour and intentions in only one scenario: How to split the bill among friends at a restaurant. Participants across all self-construal groups endorsed individualistic behaviour (everyone pays for themselves). Self-construal had a significant effect on why people would endorse this behaviour ( $\chi^2 = 13.75$ ,  $p < 0.05$ ). While in all groups, the majority picked individualist intentions (pay what you owe), those in the high I/low C group were the most likely to endorse this intention (73%); those who were low I/low C were the least likely to endorse it (51.4%). Participants who chose something other than individualistic intentions differed in their level of interdependent self-construal: the two groups with high interdependent self-construals (high I/high C and low I/high C) endorsed collectivist intention (being a good friend), while those with low interdependent self-construal (high I/low C and low I/low C) picked mixed intentions (equality).

In order to address social desirability concerns, which could be inflating agreement among the participants, as in Sinha et al. (2002)'s study, results were compared to normatively framed version of the questionnaire. The results for the normative version suggest that in the cluster pertaining to personal versus community needs participants chose individualist behaviours and intentions in three scenarios: (1) neighbour's house burns down (54%), (2) voting for mayor (41.1%), and (3) splitting the dinner bill (45.7%).

## Discussion

The results of the present study suggest that much like collectivists, individualists combine collectivist and individualist behaviours and intentions in a complex way in order to serve both their own and the group's needs. Sinha et al.'s (2002) Indian sample endorsed predominantly collectivistic behaviours and intentions (7/18 scenarios), while the second most popular response was collectivist behaviour with individualist intent (5/18). In comparison, the Canadian sample chose mixed behaviours and

intentions most frequently (7/16) and collectivist strategy as the second most popular response (4/16). This is a somewhat surprising finding; however, perhaps it illustrates the advantage that scenarios have as a measurement tool over surveys (Peng et al., 1997). When situation details involve the participant imagining how they would act towards specific people, as opposed to rating general statements, individualists appear more complex in their decision-making and more considerate of collective needs.

Oyserman et al. (2002) suggest that when items such as "defining the self contextually" were included in measurement of collectivism, Americans scored similar to Asian Americans, suggesting that, contrary to some previous findings (e.g. Choi et al., 1999), contextualism is not necessarily a distinguishing feature of collectivism. Individualistic cultures are often characterized as having high levels of isolation and lack of community. However, some research now suggests that individualists may actually have bigger social networks, as allowing one to focus on personal goals appears to increase social solidarity, cooperation, and trust (Realo & Allik, 2009). Whereas studies such as Sinha et al.'s (2002) suggest that individuals in collectivist contexts attempt to achieve personal goals through the means of collectivist behaviours, individuals in individualist contexts enjoy freedom to pursue their personal goals across different types of situations. The freedom to pursue personal goals does not stop individuals from considering the needs of others, especially those of family and friends.

This study supports the idea that individuals within a culture vary in their endorsement of societal values. Hypothesis 1 proposed that participants with high independent self-construals would choose individualist behaviours and intentions more frequently, while participants with high interdependent self-construals would choose collectivist behaviours and intentions more frequently. The results of the study supported this hypothesis. Both self-construals appeared to jointly influence individualist and collectivist behaviour, with the biggest contrasts being between groups where one construal was high and the other low. That is, participants who were higher on independent self-construals but low on interdependent self-construals were the most likely to choose individualist behaviour, and vice versa. The results suggest that while both self-construals influence behaviour, it is somewhat acceptable for someone who is collectivist to behave in an individualist manner (for example, the high I/high C group's means were quite close to those of the high I/low C group). This may be a result of the fact that these participants were in an individualistic context where much individualist behaviour is socially prescribed or expected. Thus, these behaviours may be learned from the context, as if social norms are not followed, individuals may not be as effective in their interactions with others.



Participants who reported being high or low on both self-construals typically fell in between the “true” self-construal groups. Participants who were high on both self-construals are likely similar to bicultural individuals in that they can endorse multiple points of view simultaneously and can comfortably switch between frames as the situation requires (Hong, Morris, Chiu, & Benet-Martínez, 2000; Hong & Mallorie, 2004; Oyserman & Lee, 2008). Further research is needed in regard to individuals who are low on both self-construals.

Unlike behaviours, intentions appear to be regulated largely by an individual’s level of interdependent self-construal, with those low on this self-construal preferring individualist intentions. Interestingly, high levels of interdependent self-construal appeared to curtail individualistic intent, as even if participants scored high on both interdependent and independent self-construals, they endorsed collectivist intentions. This suggests that intentions may be a close reflection of underlying values, and that both self-construals appear to regulate values in tandem, while behavioural choice may often be more a reflection of social norms and need not necessarily match individual values.

The second hypothesis posited that as the relationship in situations becomes more distant, behaviours and intentions shift to reflect the predominant cultural value of the context individualism in the present study. Interdependent self-construals were predicted to lead to an endorsement of collectivistic behaviours and intentions towards family and individualistic behaviours and intentions towards community. On the other hand, independent self-construals were predicted to lead to an endorsement of individualist behaviours and intentions across situations. This hypothesis was only partially supported. Participants chose mixed behaviours/intentions in 4/9 scenarios and collectivist in 2/9 scenarios pertaining to family and friends. In three scenarios where construal groups differed in their responses, the independent group preferred more individualist behaviours and intentions. However, for the second cluster pertaining to conflicts between personal and collective interests participants picked mixed behaviours/intentions in 3/7 scenarios and collectivist in 3/7 scenarios.

Compared to Sinha et al. (2002)’s findings, the results for cluster 1 were remarkably similar. However, where Indians picked mixed intentions/behaviours, Canadians picked collectivism, and vice versa. For example Indians chose collectivistic responses on scenarios about moving in with retired parents and most important life goals, whereas Canadians picked mixed intentions on both. On the other hand, Canadians picked collectivistic responses for when a friend in the hospital needs blood and sharing expenses for an ailing family member, whereas Indians picked a mixed strategy in those scenarios. In the second cluster, Indians picked predominantly collectivistic intentions and

behaviours except splitting the bill at a restaurant (C&I), voting (C&I), and visiting a friend doctor (II). Canadians chose C&I and collectivistic strategies equally as often, with the only individualist response being splitting the bill at a restaurant. These differences are likely reflective of normative behaviours within the two cultures. However, when phrasing the questions normatively, the Canadian sample chose individualist responses on three scenarios: neighbour’s house burns down, voting, and splitting the bill. The results from the normative version of the questionnaire seem to lend more support for Hypothesis 2. However, there are issues with the assumption that normative version (what choice would most people make) of the questionnaire shows how any single participant would actually act him- or herself. Further research is needed to address these issues.

Overall, however, the findings support the idea that self-construals are orthogonal, and that specific situations can highlight one or the other self-construal within the same individual. Thus, an over-reliance on single self-construals in research does not accurately reflect how individuals respond to situations, as the interplay between self-construals is complex. Further, it is important to note researchers should be cautious in interpreting behaviours as the intentions behind the behaviours may not be clear and can vary considerably depending on the context.

### Limitations

Many participants had mid-range scores for both interdependent and independent self-construals, thus requiring that groups based on the two self-construal scores were determined by using a median split. Levels of individualism and collectivism may vary with socioeconomic status, immigrant group, generational cohort, and other factors, so future work should examine a more varied group of participants. Another limitation is that ICBI-C does not measure actual behaviour, but rather a self-report of behaviours and intentions in hypothetical situations. Participants may not be able to accurately predict their own behaviour, especially if a situation is unfamiliar, and instead may provide an answer that is socially desirable. While this study attempts to extend Sinha et al.’s (2002) study in a different cultural context and provide a new perspective on a much-studied topic, future research should examine whether these findings hold in actual decision-making tasks in real-life circumstances.

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