

The Effects of Ethnicity and Gender on Facilitating Intrinsic Motivation during Leisure with a Close Friend

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Abstract

This study empirically tests Walker, Deng, and Dieser's (2005) proposition that ethnicity affects which factors most facilitate people's feelings of intrinsic motivation during leisure; and it extends their work by also examining the effect of gender on these facilitators. A trilingual telephone survey asked Chinese/Canadian ($N = 298$) and British/Canadian ($N = 321$) participants to identify a leisure activity they found interesting and enjoyable (i.e., intrinsically motivated) when they were with a close friend. Participants then reported how they perceived varying six facilitators—autonomy/personal choice, autonomy/mutual choice, relatedness, competence, effort, and role fulfillment—would affect their intrinsic motivation during this leisure situation. Statistical analyses indicated that five of the six facilitators differed by ethnicity, or gender, or both. Study findings are discussed, and theoretical and practical implications are described.

KEYWORDS: *Chinese, ethnicity, gender, intrinsic motivation, leisure.*

Introduction

“*Extrinsic motivation* refers to the performance of an activity in order to attain some separable outcome and, thus, contrasts with *intrinsic motivation*, which refers to doing an activity for the inherent satisfaction of the activity itself” (Ryan & Deci, 2000, p. 71). Because intrinsic motivation is relatively common during leisure (Graef, Csikszentmihalyi, & Gianinno, 1983), it has been incorporated into numerous leisure theories (Iso-Ahola, 1999; Kelly, 1978; Neulinger, 1981). Russell (2002), in fact, stated that it is this intrinsic quality “that makes leisure unique among all other human experiences” (p. 46).

Russell's (2002) statement is notable not only because she held that intrinsic motivation is leisure's quintessence, but also because she presumed that leisure and intrinsic motivation were panhuman. Chick (1998) too has posited that leisure is universal; and there is some support for this proposition. Research by Tsai and Coleman (2007) and Walker and Wang (in press) has shown, for example, that intrinsic motivation is an important aspect of, respectively, Chinese and Chinese/Canadian people's leisure.

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Even if intrinsic motivation is eventually found to be commonplace in all cultures' leisure, current research suggests that the factors that foster it may vary across cultures. For example, Deci and Ryan's (2000) self-determination theory (SDT) holds that "intrinsic motivation will be facilitated by conditions that conduce toward psychological need satisfaction, whereas undermining of intrinsic motivation will result when conditions tend to thwart need satisfaction" (p. 233). SDT asserts that three innate needs must be satisfied if people are to maintain psychological and emotional well-being: autonomy, competence, and relatedness. After a review of cross-cultural psychological research, however, Walker, Deng, and Dieser (2005) posited that, as SDT holds, autonomy/choice and competence may facilitate intrinsic motivation more for certain ethnic groups (e.g., British/Canadians) during their leisure, whereas relatedness, effort, and role fulfillment may facilitate intrinsic motivation more for certain other ethnic groups (e.g., Chinese/Canadians) during their leisure. Empirical testing of Walker et al.'s (2005) proposition is the primary objective of this study; however, because other socio-demographic and situational variables could also influence the facilitation of intrinsic motivation, a secondary objective is to determine what role gender, alone and in combination with ethnicity, plays during leisure with a close friend.

Literature Review

Intrinsic Motivation and Chinese People

According to Deci and Ryan (1985), the emotions of interest and enjoyment are integrally related to intrinsic motivation. Interest and enjoyment, along with surprise, distress, anger, disgust, contempt, fear, guilt, and shame/shyness, are often deemed basic emotions (Izard, 1977). Two reasons for interest being panhuman have been put forth (Silvia, 2006). First, Izard and Ackerman (2000) held that "interest motivates exploration and learning, and guarantees the person's engagement in the environment. Survival and adaptation require such engagement" (p. 257). Second, Fredrickson (2001) contended that interest serves not only short- but also long-term developmental goals, as it motivates people to "broaden-and-build" their experiences; and doing so can prove beneficial when unforeseen events occur. Enjoyment, in contrast with interest, serves as a rewarding rather than a motivating function (Silvia, 2006).

Research supports these emotions' relevance for Chinese people, with Russell and Yik (1996) finding that interest demonstrated Chinese/English equivalence in multiple linguistic studies. The role of interest in Chinese people's leisure has also been supported. Tsai and Coleman (2007) found, for example, that Hong Kong Chinese undergraduates reported being less interested, overall, in a variety of leisure activities compared with Australian students. In-group comparisons indicated, however, that "for both Hong Kong and Australian students, social and sedentary activities were generally most well-liked among other leisure pursuits" (p. 167). Sedentary activities were also frequently mentioned in a study (Walker & Deng, 2003) that compared the Chinese experience of *rùnmí* (i.e., to be absorbed in an activity) with the subjective leisure experience (Mannell & Kleiber, 1997). Based in part on their discovery that interest was the most intense emotion experienced during *rùnmí*, Walker and Deng concluded that although the two phenomena were not equivalent they were comparable. Finally, in a study of Canadian and Mainland Chinese undergraduates' leisure motivations us-

ing self-determination theory (Deci & Ryan, 1985), Walker and Wang (in press) found that the two groups did not differ in their levels of intrinsic motivation. In summary, there is support for Chinese people experiencing interest and, correspondingly, for the appropriateness and importance of using intrinsic motivation to understand Chinese people's leisure experiences.

Culture and Facilitating Intrinsic Motivation

As noted earlier, Deci and Ryan (2000) believed that intrinsic motivation is fostered when three fundamental needs are satisfied: autonomy, relatedness, and competence. Concerns have arisen, however, about how these needs are conceptualized and whether they are equally important across cultures. Walker et al. (2005) provided an in-depth discussion of these issues in regard to leisure and much of the information that follows is from their article.

According to Deci and Ryan (2000), relatedness is the "desire to feel connected to others—to love and care, and be loved and cared for," whereas autonomy is the "desire to self-organize experience and behavior and to have activity be concordant with one's integrated sense of self" (p. 231). Walker et al. (2005) argued that the word "self-organize" in the definition of autonomy connotes *personal* choice, and support their interpretation by, for example, citing one of the scale items used to measure this need (i.e., "Free to do things my own way"; Sheldon, Elliot, Kim, & Kasser, 2001). Consequently, Walker et al. referred to SDT's conceptualization of autonomy as "autonomy/personal choice," and this study will follow suite. Walker et al. also noted that, according to SDT, the facilitative effects satisfying these two needs have on intrinsic motivation varies, as "autonomy is essential to intrinsic motivation" (Deci & Ryan, p. 234), whereas "relatedness also plays a role, albeit a more distal one, in the maintenance of intrinsic motivation" (p. 235). Walker et al. added that competence apparently falls somewhere in-between, although this is somewhat unclear as Deci and Ryan also stated that, in order for intrinsically motivated behaviors "to be maintained, they require satisfaction of the needs for autonomy *and* [italics added] competence" (p. 233).

Besides these conceptual difficulties, recent cross-cultural research has also challenged some of SDT's underlying propositions. For example, Sheldon et al. (2001) had undergraduates in the U.S. and South Korea rate the importance of 10 fundamental psychological needs, including self-esteem, pleasure-stimulation, and, from SDT, autonomy/personal choice, competence, and relatedness. They found that the American students rated self-esteem the highest, followed by relatedness, autonomy/personal choice, and competence (with no significant differences among these last three needs), whereas South Koreans students rated relatedness the highest, followed by self-esteem, and then by autonomy/personal choice, competence, and pleasure-stimulation (with no significant differences among these last three needs). Interestingly, a recent study (Grouzet et al., 2005) of undergraduates from 15 cultures (including Hong Kong and Mainland Chinese) suggested that there may be similarities in how people's needs, goals, and aspirations are organized. Unfortunately, similarities and differences in the importance of these variables across cultures were not examined.

Oishi and Diener (2003) found that, two weeks after completing a mandatory basketball throwing task, European and Asian American undergraduates differed when they asked to make a choice between completing the same basketball task or a new

dart throwing task. Whereas the European American students reported enjoying the mandatory task less than the volitional task, there was no significant difference in enjoyment between the two tasks for the Asian American students. Similarly, Iyengar and Lepper (1999) discovered that although Anglo American children were intrinsically motivated the most when they personally chose aspects of a puzzle experiment, Chinese and Japanese children were intrinsically motivated the most when they were told that an in-group member (i.e., their mothers) had chosen for them. This finding led these researchers to conclude that, "the provision of individual choice seems to be more crucial to American independent selves, for whom the act of making a personal choice offers not only an opportunity to express and receive one's personal preference, but also a chance to establish one's unique self-identity" (p. 363). Iyengar and Lepper also concluded that, for Asian Americans, "having choices made by relevant in-group members instead of making their own choices seems consistently more intrinsically motivating, presumably because it provides a greater opportunity to promote harmony and to fulfill the goal of belonging to the group" (p. 363). Walker et al. (2005) have called this type of autonomy "mutual choice."

Unfortunately, Iyengar and Lepper (1999) did not discuss how autonomy/mutual choice occurred, although they did rectify this oversight in a later non-empirical article (Iyengar & Lepper, 2002) when they stated that, "for members of interdependent cultures, it is not the exercise of choice that is necessary for intrinsic motivation but the perception of themselves as having fulfilled their duties and obligations toward their reference groups" (p. 77). There is some support for their proposition. Bontempo, Lobel, and Triandis (1990) found that in Brazilian culture people often felt good after doing what was normatively required of them. Similarly, in Chinese culture, *bu fu hou wang* (i.e., to live up to others' expectations) "is aspired to and cherished" (Gao, 1998, p. 165), and conforming to role expectations is seen as a sign of strength and maturity (Wong & Ahuvia, 1998). Walker et al. (2005) referred to this phenomenon as role fulfillment.

Although role fulfillment initially seems at odds with self-determination theory, Chirkov, Ryan, Kim, and Kaplan (2003) described how it could, if internalized, be consistent with SDT. They stated that:

because autonomy concerns volition, persons who are strongly connected with others often function with those others' interest in mind. Put differently, if others are integrated within oneself (e.g., Aron & Aron, 1997), doing for or conforming with those others could be fully volitional. (p. 107)

Thus, for Chinese people, role fulfillment could affect intrinsic motivation in a manner not unlike how autonomy/personal choice influences this motivation for Euro-North Americans.

Finally, culture may also influence the need for competence. Heine et al. (2001) found that, although Canadians persisted significantly longer on a second creativity test after having been told that they had successfully completed an earlier test, Japanese persisted significantly longer on the second test after they had been told that they had *failed* the first test. In interpreting these results, the researchers stated that in cultures such as Japan, "the individual has neither the liberty nor the inclination to inflate his or her perceptions of competence.... [because] doing so likely would only serve to alienate the individual from others" (Heine, Lehman, Markus, & Kitayama, 1999,

p. 771). Thus, for Japanese, it is less “being” good (i.e., competence) that is important than the process of “becoming” better (i.e., effort; Heine et al., 1999), as it is the latter that is most likely to lead to the need for relatedness being satisfied (see also Triandis, 1995).

Gender, Social Situation, and Facilitating Intrinsic Motivation

Besides culture, variations in SDT may also occur due to “special influences” (Ryan, 1995), such as the type of domain one is in (e.g., paid work, formal schooling, leisure activities) and who one is with (e.g., boss, teacher, parent, close friend). The latter is particularly important in this study as “the distinction between in-group members (*zijiren*, typically kin, the romantic partner, and close friends) and the out-group (*wairen*, all those not in the in-group) appears sharper in Chinese than in other societies” (Goodwin & Tang, 1996, p. 295). In-group members can be further differentiated as friendship is the only non-hierarchical relationship recognized in Confucianism (Gao, 1996). Research by Chuang (1998) suggested that this perspective is still common among Chinese people. Additionally, although Goodwin and Tang stated that “the term ‘close friend’ in the West means something rather less intimate than it does in Chinese cultures, and the apparent sociability of Westerners is perhaps less deep than are the close friendship relationships of the Chinese” (p. 302), counterevidence exists. Uleman, Rhee, Bardoliwalla, Semin, and Toyama (2000) found, for example, that Euro- and Asian-Americans were very similar in their “general closeness” to close friends. Similarly, Li (2002) discovered that, while Mainland Chinese were closer to family members than were Anglo-Canadians, the two groups did not differ in their connectedness to close friends. In summary, because SDT varies across domains and social situations, specificity is critical. The latter may be especially true in cross-cultural research as, although close friendship appears comparable for Chinese, Chinese in North America, and Euro-North Americans, other types of relationships can differ markedly.

Li’s (2002) study also demonstrated why gender should be included as an explanatory variable. Specifically, although Li found that Anglo-Canadians and Mainland Chinese did not differ in their connectedness to close friends, he did find that: “in the Canadian sample, females were closer to their friends than males, while in the Chinese sample, males were closer to their friends than females” (p. 93). Correspondingly, La Guardia, Ryan, Couchman, and Deci (2000) discovered that U.S. undergraduates’ needs for autonomy, competence, and relatedness were satisfied the most by their best friends; and that best friends satisfied the need for relatedness more for female students than male students. The latter is not too surprising, as Gilligan (1982) and Jordan (1997) held that Western women are more relatedness-oriented whereas males were more autonomy/personal choice-oriented. Similarly, Shaw (1999) discussed the “ethic of care” in terms of Western women’s role as caregiver to “children, spouses, or *friends*” (*italics added*; p. 275). While Shaw viewed the ethic of care as a leisure constraint, if internalized (Deci & Ryan, 2000) it could also be seen as a valued role responsibility and, potentially, as even being fully volitional (as per Chirkov et al., 2003).

Based on the above, three within-group hypotheses are proposed. *During leisure with a close friend*:

H1: For British/Canadian males, intrinsic motivation will be facilitated: (a) more by autonomy/mutual choice than by relatedness or role fulfillment; and (b) more by com-

petence than by effort.

H2: For British/Canadian females, intrinsic motivation will be facilitated: (a) equally by autonomy/mutual choice and relatedness, with both of these being more than role fulfillment; and (b) more by competence than by effort.

H3: For Chinese/Canadian males and females, intrinsic motivation will be facilitated: (a) more by relatedness and role fulfillment than by autonomy/mutual choice; and (b) more by effort more than by competence.

Between- and Among-Group Differences in Facilitating Intrinsic Motivation

As described above, this study specifically examines intrinsic motivation during leisure with a close friend. Tsai and Levenson (1997) found, however, that in social contexts Chinese Americans were more likely to report both emotional moderation as well as fewer periods of positive affect than European Americans. Similarly, although Westerners largely subscribe to the psychological and physiological benefits of emotional display and release (Pennebaker, 1982) emotional expressions such as love, anger, and joy are typically kept covert in Chinese culture (Gao, 1996; Gao, Ting-Toomey, & Gudykunst, 1996). According to Bond (1993; Bond & Hwang, 1996), by moderating their emotions and limiting their emotional expressiveness (*hanxu*), Chinese believed they are better able to maintain harmony with others (*suihe*)—including, we infer, with close friends. Uleman et al.'s (2000) study supports this proposition, as they found not only that “harmonious closeness” was the *sine qua non* of close friendship (p. 13), but also that this type of connectedness was more important for Asian-Americans than Euro-Americans. Based on these findings, Chinese/Canadians' intrinsic motivation may be facilitated less than British/Canadians' as the former group will be more inclined to moderate the emotions associated with intrinsic motivation (i.e., interest and enjoyment; Deci & Ryan, 1985) when they are with a close friend. Potentially, as with the second hypothesis, two facilitators—relatedness and role fulfillment—may also interact with gender. Thus, a between-group and an among-group hypothesis, respectively, are put forth. *During leisure with a close friend:*

H4: For British/Canadians, intrinsic motivation will be facilitated more by autonomy/personal choice, autonomy/mutual choice, competence, and effort than for Chinese/Canadians.

H5: For British/Canadian females, intrinsic motivation will be facilitated more by relatedness and role fulfillment than for British/Canadian males or Chinese/Canadian males and females.

Before concluding this review it must be reiterated that the author is not proposing that autonomy, relatedness, and competence are not fundamental needs or that satisfying these needs does not foster intrinsic motivation. Rather, what is being proposed is that autonomy, relatedness, and competence may be conceptualized differently in non-Western cultures; that other factors may facilitate intrinsic motivation besides these three; and that the importance of these SDT and non-SDT facilitators can and likely do vary to some degree across cultures and between genders.

Method

Study Instrument

A questionnaire was developed that included sections on ethnicity, leisure and intrinsic motivation facilitation, and socio-demographic information (e.g., gender, language preference, income level). In the first section of the questionnaire, participants were asked: "Which ethnic group do you most closely identify with? Would you say English, English-Canadian, Chinese, Chinese-Canadian, Irish, Irish-Canadian, Scottish, Scottish-Canadian, Welsh, Welsh-Canadian, Canadian, none of the above?" Respondents who selected "None of the above," chose not to answer, or did not know their ethnicity were ineligible to participate. Respondents who selected either Chinese or Chinese-Canadian were assigned to the Chinese/Canadian group whereas the remaining respondents were assigned to the British/Canadian group. The decision to describe these participants as British/Canadian was based on Statistics Canada's (1998) British Islander ethnicity category, as well as the agency's contention (Statistics Canada, 2003) that much of the increase in the reporting of "Canadian" in the 2001 census was done by individuals who had reported English in previous censuses.

In the second section of the questionnaire, participants were first asked to think about their leisure activities generally (i.e., "things that you do outside paid work and housework, such as playing games or sports, reading or watching television, doing crafts or hobbies, or spending time with others") and then to identify a specific leisure activity that they often found interesting and enjoyable when they were with a close friend. Participants were then asked what effect they perceived 16 items, representing six facilitators (i.e., autonomy/personal choice, autonomy/mutual choice, relatedness, competence, effort, and role fulfillment), would have on their intrinsic motivation when engaged in the activity with their close friend. Most of the items were either from, or slightly modified from, existing scales (e.g., Baldwin & Caldwell, 2003; Self-Regulation Questionnaires, 2003), although some items, such as those for the role fulfillment scale, were specifically designed for this study. Facilitation was measured using a five-point scale (1 = much less interesting and enjoyable; 2 = slightly less interesting and enjoyable; 3 = no change; 4 = slightly more interesting and enjoyable; 5 = much more interesting and enjoyable). Participants could also respond "not applicable" if they so chose.

All of the measures were translated from English into simplified Chinese by one individual. Then a second individual—who had not seen the original English-language questionnaire—translated it from simplified Chinese back into English. The original English-language questionnaire and the translated English-language questionnaire were compared and revisions were made as necessary (i.e., back-translation; Brislin, 1970).

Study Sample

A quota of approximately 800 study participants, composed of near equal numbers of British/Canadian and Chinese/Canadian males and females, was chosen *a priori* based on power considerations (Lauter, 1978). Potential British/Canadian participants were selected using a computer-generated sample and a random digit dialing approach. Potential Chinese/Canadian participants were selected based on Yida's

research on the 100 most common surnames in China (Yan, 2002), and the various alternate spellings that exist (e.g., Zhang, the third most common surname in China, can also be spelled Chang, Cheong, Cheung, Chiang, Cheung, or Teoh depending upon the dialect; Chinese Roots, 2003). A list of 885 Chinese surnames was subsequently developed, and a random sample of over 4,000 listed telephone numbers assigned to people with these surnames was obtained from a telecommunications company.

Data were collected by the University of Alberta Population Research Lab from its centralized Computer-Assisted Telephone Interviewing (CATI) facilities. Along with English-speaking interviewers, Cantonese- and *Pǔtōnghuà* (i.e., Mandarin)-speaking interviewers were scheduled for each shift. A pre-test with 30 respondents was conducted to determine if there were any wording, organization, or language concerns. Participants indicated that the two Chinese-language competence items were very similar and so one was dropped, resulting in a single-item scale.

To obtain the desired number of British/Canadian participants for the study, 4,632 telephone numbers were called, with many of these subsequently being excluded for various reasons including: being ineligible (e.g., out of service, business/fax, quota full, $n = 2,153$), screened (e.g., refusal, incomplete, $n = 1,003$), unscreened (e.g., busy, no answer, answering machine, $n = 785$), or undetermined (e.g., call back, $n = 29$). To obtain the desired number of Chinese/Canadian participants, 2,414 telephone numbers were called, with many of these numbers also being excluded for various reasons, including: being ineligible (e.g., out of service, business/fax, quota full, $n = 315$), screened (e.g., refusal, incomplete, $n = 952$), unscreened (e.g., busy, no answer, answering machine, $n = 419$), or undetermined (e.g., call back, $n = 126$). In total, 410 British/Canadian and 411 Chinese/Canadians completed interviews. Thus, the overall response rates (i.e., completed interviews divided by completed interviews and screened numbers) were 29.0% for British/Canadians and 29.6% for Chinese/Canadians. Reasons given for refusing to participate included a lack of time and/or interest and, with the Chinese/Canadian quota, a few language-related issues (e.g., interviewee spoke a regional dialect.)

To forestall concerns about the study's ethnic groupings being overly broad—a critique often and accurately aimed at our field (Stodolska & Yi-Kook, 2005)—British/Canadian participant's who reported that their preferred language was not English, and Chinese/Canadian participants who reported that their preferred language was not English, Chinese, Cantonese, or *Pǔtōnghuà*, and who were not born in Canada, Hong Kong, or Mainland China, were also excluded. Participants who reported that they did not recreate with a close friend, had extensive missing data, or whose data exhibited extremely low variability or were multivariate outliers, were also excluded.

After excluding participants who did not meet these criteria, 298 Chinese/Canadians (148 males and 150 females) and 321 British/Canadians (164 males and 157 females) remained. Chi-square tests indicated that there were significant differences between the two groups in terms of: (a) age, $\chi^2(3, N = 618) = 37.19, p < .0001, V = .2453$, due mostly to more Chinese/Canadians being in the 35 to 49 age group and more British/Canadians being in the 50 and over age group; (b) marital status, $\chi^2(1, N = 617) = 16.02, p < .0001, V = .1611$, due to the higher number of single/divorced/widowed British/Canadians compared with Chinese/Canadians; (c) income level, $\chi^2(4, N = 487) = 25.28, p < .0001, V = .22279$, due largely to the higher number

of Chinese/Canadians earning under \$25,000 Canadian and the higher number of British/Canadians earning more than \$100,000 Canadian; and (d) education level, $\chi^2(3, N = 538) = 28.59, p < .0001, V = .2305$, due primarily to the higher number of British/Canadians who had some post-secondary education and the lower number of Chinese/Canadians who did not. The majority of Chinese/Canadian participants were born in Mainland China (70%), followed by Hong Kong (19%) and Canada (11%). Of the Chinese/Canadians who were born elsewhere, 83% had moved to Canada since 1989.

Data Analysis

Data analysis had three stages:

1. Study participants' leisure activities were independently assigned to six categories by the author and a Chinese research assistant. Categories were determined based on previous classification schemes involving Chinese (Lu & Hu, 2005), Canadian (Iso-Ahola, Jackson, & Dunn, 1994), and Chinese-American (Yu & Berryman, 1996) recreationists. Bakeman's (2006) ComKappa program was used to calculate an initial kappa coefficient, major assignment discrepancies were identified, discussed, and resolved, and a final kappa coefficient was determined. A chi-square test was then performed on the six activity categories by ethnicity and gender.

TABLE 1
Frequency and Percentages for Type of Activity, by Ethnicity and Gender

	British / Canadian				Chinese / Canadian			
	Male		Female		Male		Female	
Type of Activity	N	%	N	%	N	%	N	%
Outdoor	63	38.4	27	17.2	16	10.8	19	12.7
Sport & Exercise	28	17.1	30	19.1	44	29.7	25	16.7
Games	13	7.9	12	7.6	14	9.5	11	7.3
Social	27	16.6	24	15.3	34	23.0	41	27.3
Media	19	11.6	37	23.6	27	18.2	30	20.0
Other	14	8.5	27	17.2	13	8.8	24	16.0
N	164		157		148		150	

Note. Participants were asked to identify a specific leisure activity that they often found was interesting and enjoyable, when they were with a close friend. Activities were subsequently classified into six types.

2. Standardized Cronbach coefficient alphas were calculated, by ethnicity, for the intrinsic motivation facilitation scales, and equality of the reliability coefficients was tested (as per van de Vijver & Leung, 1997).
3. To test the study's hypotheses, two profile analyses were performed. Profile analysis is a special type of multivariate analysis of variance (MANOVA) "available when all of the DVs [i.e., dependent variables] are measured on the same scale (or on scales with the same psychometrical properties) and you want to know if groups differ on these scales" (Tabachnick & Fidell, 2006, p. 23). Because of the number of follow-up comparisons and linear contrasts required, a Bonferroni adjusted probability level of less than .0022 (i.e., $p = .05 / 23$ tests) was used to control for Type II error.

Results

Participants' intrinsically motivated leisure activities were classified into six categories: (1) *outdoor* (e.g., camping, cycling, playing golf); (2) *sport and exercise* (e.g., visiting a gym, playing badminton, basketball, table tennis); (3) *games* (e.g., playing poker, mah-jong, computer games); (4) *social* (e.g., chatting, dining out, going for coffee); (5) *media* (e.g., watching a movie or television show); and *other* (primarily shopping). A kappa coefficient of .80 was calculated, but further investigation revealed that much of this discrepancy was due to cycling and playing golf being assigned to different categories. It was subsequently decided that these two activities fit best in the outdoor rather than the sport and exercise category and, after being reclassified, a kappa coefficient of .92 was obtained. For comparative purposes, a kappa coefficient of .61 to .80 is considered "substantial" and a coefficient of .81 to 1.00 is considered "almost perfect" (Landis & Koch, 1977, p. 165).

Table 1 reports the six activity categories' frequencies and percentages, by ethnicity and gender. A chi-square test on the activity categories, by ethnicity and gender, was significant, $\chi^2 (15, N = 619) = 68.95, p < .0001, V = .1927$. For comparative purposes, this is a medium effect size (Cohen, 1988). Examination of the cell chi-squares indicated that this result was largely due to more British/Canadian males than expected being in the outdoor category, but also because of: (a) fewer British/Canadian males being in the media, social, and other categories; (b) more British/Canadian females being in the media and other categories and fewer being in the social category; (c) more Chinese/Canadian males being in the sport and exercise category and fewer being in the outdoor and other categories; and (d) more Chinese/Canadian females being in the social and other categories and fewer being in the outdoor and sport and exercise categories.

Table 2 reports the 16 facilitation items and standardized Cronbach coefficient alphas for the associated scales. Analyses indicated that the autonomy/mutual choice and role fulfillment scales' coefficient alphas would increase if an item was dropped from each (i.e., "neither of you feeling like you have to do this activity" and "feeling you are fulfilling your role as a friend," respectively). After deletion, scale coefficient alphas were all above or near accepted levels for an exploratory study (Nunnally, 1978; Schmitt, 1996), especially when the number of constructs being measured is taken

TABLE 2
Intrinsic Motivation Facilitation Scales, Items, Standardized Cronbach Alphas, and Reliability Coefficient F-ratios, by Ethnicity

Facilitation Scale and Items (Comments)	Cronbach Alpha		F-ratio
	British/ Canadian	Chinese/ Canadian	
Choice - Personal	.69	.60	1.29
Doing this activity although you really don't want to (R)			
Not feeling it is your own choice to do this activity (R)			
Feeling like you have to do this activity (R)			
Choice - Mutual	.50	.54	1.09
Doing this activity because you both really want to			
Both of you feeling it is your own choice to do this activity			
Neither of you feeling like you have to do this activity (D)			
Relatedness	.81	.81	1.00
Feeling close to your friend emotionally			
Feeling supported by your close friend			
Feeling you can really trust your close friend			
Feeling your close friend truly respects you			
Competence	—	—	—
You feeling very competent in this activity			
Effort	.75	.55	1.80*
You putting a lot of effort into this activity			
You trying very hard to do well at this activity			
Role Fulfillment	.74	.72	1.08
Feeling that you are satisfying your responsibilities as a friend			
Feeling that you are being a good friend			
Feeling you are fulfilling your role as a friend (D)			

Note. R = reverse coded, D = deleted.
* $p < .01$.

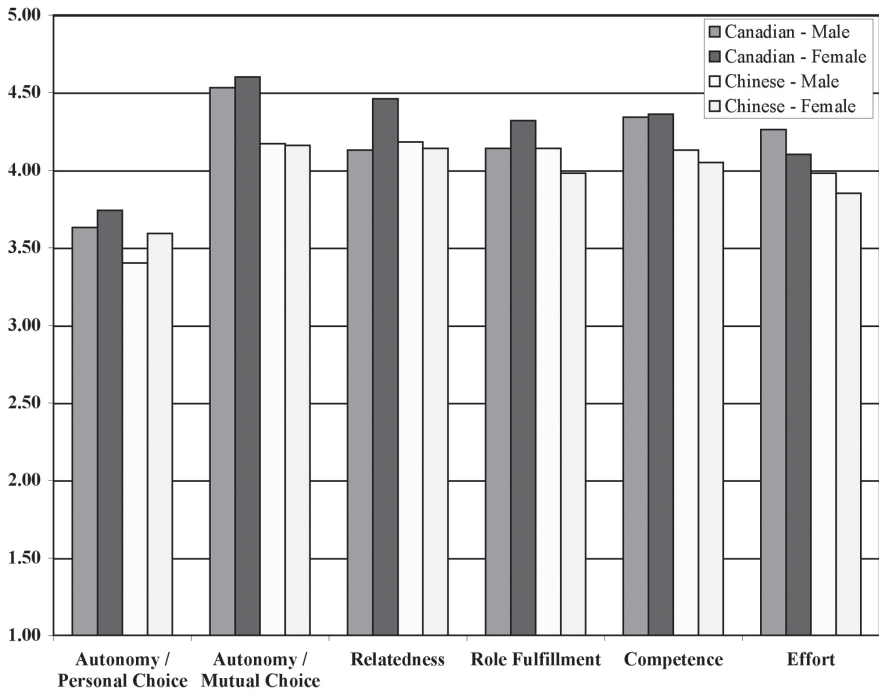


Figure 1. Intrinsic Motivation Facilitator Scale Means, by Ethnicity and Gender

into account (Cronbach & Gleser, 1965). Equality of the seven motivational scales' reliability coefficients was tested using van de Vijver and Leung's (1997) recommended procedure. Only the effort scales' reliability coefficient was significant at $p < .01$. Thus, although the reliability coefficients for the other multi-item facilitation scales suggest construct equivalence (van de Vijver & Leung), this result could mean that Chinese/Canadians do not construe effort in the same manner as British/Canadians when engaged in leisure with their close friends. On the other hand, because this scale's coefficient alpha of .55 is acceptable, it will continue to be used to measure the effect of effort as a facilitating agent for Chinese/Canadians in the remainder of this study.

A three-way (i.e., facilitator by ethnicity by gender) profile analysis was performed. The test of parallelism (i.e., interaction) was significant, Wilk's $\Lambda = 0.97$, $F(5, 485) = 2.71$, $p < .0199$, as was the test of flatness (i.e., measures), Wilk's $\Lambda = .59$, $F(5, 485) = 66.46$, $p < .0001$. The levels test (i.e., groups) was not significant, $F(1, 489) = 2.46$, $p > .1173$, however. Thus, simple effects analysis among the sub-groups' means were subsequently conducted (Figure 1). As hypothesized ($H5a$), relatedness was significant, $F(3, 614) = 8.11$, $p < .0001$, with the Tukey's HSD test indicating that this variable facilitated intrinsic motivation more for British/Canadian females than for British/Canadian males, Chinese/Canadian males, or Chinese/Canadian females. However, role fulfillment ($H5b$) did not foster intrinsic motivation more for British/Canadian females than for British/Canadian males, Chinese/Canadian males, or Chinese/Canadian females at the Bonferroni adjusted $p < .0022$ [i.e., $F(1, 608) = 4.21$, $p < .0058$].

As expected, none of the other facilitators' simple effects were significant by ethnicity and gender.

Simple effects analysis among the facilitation scales' means using linear contrasts, by ethnicity and gender, were also conducted. For British/Canadian males it was hypothesized (*H1a*) that intrinsic motivation would be facilitated more by autonomy/mutual choice than by relatedness or role fulfillment, and this was indeed the case [Wilk's $\Lambda = 0.72$, $F(1, 162) = 61.67$, $p < .0001$; Wilk's $\Lambda = 0.77$, $F(1, 159) = 46.30$, $p < .0001$; respectively]. It was also hypothesized (*H1b*) that, intrinsic motivation would be fostered more by competence than by effort for British/Canadian males, but this was not supported [Wilk's $\Lambda = 0.98$, $F(1, 148) = 0.35$, $p > .5530$].

For British/Canadian females it was hypothesized (*H2a*) that autonomy/mutual choice and relatedness would foster intrinsic motivation equally, with both of these variables being more facilitative than role fulfillment. As hypothesized, relatedness and autonomy/mutual choice did not differ significantly at the Bonferroni adjusted probability level, Wilk's $\Lambda = 0.95$, $F(1, 156) = 8.60$, $p < .0039$. On the other hand, although autonomy/mutual choice fostered intrinsic motivation more than role fulfillment, Wilk's $\Lambda = 21.45$, $F(1, 155) = 21.45$, $p < .0001$, relatedness did not, Wilk's $\Lambda = 0.95$, $F(1, 155) = 8.87$, $p < .0034$. Also, as hypothesized (*H2b*), competence facilitated intrinsic motivation more than effort for British/Canadian females, Wilk's $\Lambda = 0.92$, $F(1, 123) = 10.62$, $p < .0014$.

For Chinese/Canadians it was hypothesized (*H3a*) that intrinsic motivation would be fostered more by relatedness and role fulfillment than by autonomy/mutual choice. Linear contrasts showed, however, that neither relatedness [males: Wilk's $\Lambda = 1.00$, $F(1, 145) = 0.02$, $p > .8806$; females: Wilk's $\Lambda = 1.00$, $F(1, 149) = 0.01$, $p > .9293$] nor role fulfillment [males: Wilk's $\Lambda = 0.99$, $F(1, 141) = 1.15$, $p > .2860$; females: Wilk's $\Lambda = 0.97$, $F(1, 148) = 5.13$, $p < .0250$] were more facilitative than autonomy/mutual choice. It was also hypothesized (*H3b*) that effort would foster intrinsic motivation more than competence for both Chinese/Canadian males and females. This was not supported for either gender at the Bonferroni adjusted probability level [males: Wilk's $\Lambda = 0.97$, $F(1, 124) = 3.59$, $p > .0603$; females: Wilk's $\Lambda = 0.94$, $F(1, 124) = 7.29$, $p < .0079$].

As noted earlier effort, competence, autonomy/personal choice, autonomy/mutual choice did not—as expected—differ by ethnicity and gender combined. Thus, a two-way (facilitator by ethnicity) profile analysis was conducted using these four variables. Although the test of parallelism (i.e., interaction) was not significant, Wilk's $\Lambda = 0.98$, $F(3, 494) = 2.57$, $p > .0536$, both the test of flatness (i.e., measures), Wilk's $\Lambda = .61$, $F(3, 494) = 66.46$, $p < .0001$, and the levels test (i.e., groups), $F(1, 486) = 39.42$, $p < .0001$, were. Simple effects analysis among the group means were subsequently performed and, as hypothesized (*H4*), autonomy/mutual choice, $F(1, 496) = 46.17$, $p < .0001$, $R^2 = .09$, competence, $F(1, 496) = 11.40$, $p < .0008$, $R^2 = .02$, and effort, $F(1, 496) = 12.55$, $p < .0004$, $R^2 = .02$, fostered intrinsic motivation more for British/Canadians ($M = 4.56$, $SD = 0.60$; $M = 4.34$, $SD = 0.82$; $M = 4.18$, $SD = 0.88$; respectively) than for Chinese/Canadians ($M = 4.16$, $SD = 0.70$; $M = 4.09$, $SD = 0.82$; $M = 3.92$, $SD = 0.76$; respectively). Autonomy/personal choice did not, however, differ at the Bonferroni adjusted level, $F(1, 496) = 6.18$, $p < .0132$, $R^2 = .01$, as had been hypothesized (British/Canadians, $M = 3.68$, $SD = 0.88$; Chinese/Canadians, $M = 3.50$, $SD = 0.79$).

Discussion

Support for this study's three within-group hypotheses was mixed. For example, although autonomy/mutual choice did facilitate intrinsic motivation more than either relatedness or role fulfillment for British/Canadian males (*H1a*), competence did not foster this motivation more than effort (*H1b*). Similarly, although autonomy/mutual choice and relatedness did facilitate intrinsic motivation equally for British/Canadian females, and autonomy/mutual choice did foster this motivation more than role fulfillment, relatedness did not do so more than role fulfillment (*H2a*). On the other hand, competence did foster intrinsic motivation more than effort for this sub-group (*H2b*). However, neither relatedness nor role fulfillment facilitated intrinsic motivation more than autonomy/mutual choice for Chinese/Canadian males and females (*H3a*). Additionally, effort did not foster intrinsic motivation more than competence for either gender in this group (*H3b*).

Based on the above, it appears that autonomy/mutual choice and relatedness facilitated intrinsic motivation near equally during leisure with a close friend; except for British/Canadian males. As noted in the literature review, this exception was expected as research (Gilligan, 1982; Jordan, 1997) has suggested that Euro-North American males emphasize autonomy more than relatedness. Unexpected, however, was the discovery that Chinese/Canadians perceived that these two facilitators affected intrinsic motivation comparably. Potentially, this finding may have been due to how this study operationalized autonomy/mutual choice; that is, in terms of shared decision-making. This operationalization differs from that of Iyengar and Lepper (1999) as they experimentally manipulated the choice situation so that it appeared that an in-group member had selected for the participant. As their work provided part of the rationale for this study's hypothesis that Chinese/Canadians would give precedence to relatedness over autonomy/mutual choice, this difference could explain the resulting lack of empirical support. It is worth noting that this distinction suggests that, in addition to autonomy/personal choice, there may also be autonomy/in-group member choice (as per Iyengar & Lepper, 1999) and autonomy/mutual choice (as per this study). More importantly, however, these findings appear to challenge the primacy generally given to choice as *the* principal facilitator of intrinsic motivation in leisure (e.g., Iso-Ahola, 1999) and psychological (e.g., Deci & Ryan, 2000) research—at least for non-Euro-North American males.

Study findings also showed that, although autonomy/mutual choice facilitated intrinsic motivation more than role fulfillment for British/Canadian males and females, these two facilitators fostered this motivation comparably for Chinese/Canadian males and females. Whereas the former was expected the latter was not as it was hypothesized that, for Chinese/Canadians, role fulfillment would facilitate intrinsic motivation more than autonomy/mutual choice. Once again, this outcome may have been because of how autonomy/mutual choice was operationalized. Regardless, the discovery that role fulfillment's facilitative effect is comparable to that of autonomy/mutual choice for Chinese/Canadians suggests that future research on intrinsic motivation could benefit from incorporation of this variable. Such research would prove even more valuable if it was also established that conforming can become volitional if internalized (Chirkov et al., 2003), as role fulfillment would then be seen as consistent with, and an important part of, self-determination theory.

In regard to competence and effort, British/Canadian females did—as expected—report that the former was more facilitative than the latter. This outcome may have been due in part to the large number of women who were in the media category, as the expenditure of effort can often be anathematic to enjoying, for example, reading a book or watching a movie (Quarrick, 1989). Similarly, because of the large number of British/Canadian males in the outdoor category, this could explain why effort was not found to be less facilitative than competence. Correspondingly, the large number of Chinese/Canadian females in the social activity category, and the large number of Chinese/Canadian males in the sport and exercise category, could explain why effort was not found to be more facilitative than competence. These explanations are largely in line with Esteve, San Martin, and Lopez's (1999) discovery that leisure has three underlying dimensions: (1) effort level, which ranges from low, conceived of as rest and relaxation, to high, conceived of as challenges and personal growth; (2) purpose, which ranges from low to high instrumentality, with competence loading prominently on this dimension; and (3) social interaction. Although Esteve et al. did not describe specific types of leisure in terms of these dimensions, other research (Larson & Kleiber, 1993) has suggested that this study's outdoor and sport and exercise categories would be located at the high end of their effort scales and the social and media categories would be located at the low end of their effort scale. Based on the above, therefore, it appears that both competence *and* effort should be incorporated into future studies of intrinsic motivation facilitation.

In contrast, support for this study's between-group hypothesis was relatively strong. For example, although autonomy/personal choice did not facilitate intrinsic motivation more for British/Canadians than for Chinese/Canadians, effort, competence, and autonomy/mutual choice did (*H4*). Potentially, autonomy/personal choice may simply be a moot point during leisure with a close friend, regardless of one's ethnicity. In contrast, ethnicity was clearly relevant in terms of effort, competence, and autonomy/mutual choice. These findings were, as outlined in the literature review, expected as emotional moderation is viewed positively in Chinese culture because it demonstrates maturity and decreases the likelihood of interpersonal disharmony, whereas, in European American and Canadian culture, this would be interpreted as emotional suppression and seen as unhealthy (Pennebaker, 1982) or inauthentic (Turner & Billings, 1991). Moreover, because the current study focused specifically on leisure with a close friend, it seems likely that these emotional tendencies are even more germane than if a person was recreating with, for example, colleagues, acquaintances, or strangers.

Finally, in regard to this study's among-group hypothesis, support was once again mixed. For example, although British/Canadian females' intrinsic motivation was not facilitated more by role fulfillment compared with British/Canadian males and Chinese/Canadian males and females, relatedness did foster intrinsic motivation more for them than for the other three sub-groups (*H5*). After visually re-examining Figure 1, it appears that role fulfillment varies not by ethnicity and gender but rather only between British/Canadian and Chinese/Canadian females. Potentially, this difference could be due to the type of co-recreationist who was specified; that is, this study focused specifically on a close friend rather than close family members. Although close friends and close family members can be equally important in terms of the ethic of care for British/Canadian females (Shaw, 1999), close friends may be less important than close

family members for Chinese/Canadian females in this regard. There is some support for this proposition as t-tests using Li's (2002) data indicated that Canadian females were equally connected to their close friends and close family members (defined as parents and siblings), whereas Mainland Chinese females were significantly less connected to their close friends than their close family members. This finding would also explain why relatedness facilitated intrinsic motivation more for British/Canadian females than Chinese/Canadian females during leisure with a close friend. Similarly, Li found that British/Canadian females felt more connected to their close friends than British/Canadian males. This finding, in conjunction with research that suggested that females place greater emphasis on relatedness than males (Gilligan, 1982; Jordan, 1997), under-lies this study's—subsequently supported—hypothesis that relatedness would foster intrinsic motivation more for British/Canadian females than British/Canadian males.

Conclusion

This study empirically tested Walker et al.'s (2005) proposition that ethnicity affects which factors most facilitate people's feelings of intrinsic motivation during leisure; and it extended their work by also examining the effect of gender on these facilitators. Study findings indicated that there are significant differences between British/Canadians and Chinese/Canadians and among males and females in these two ethnic groups. Between-group differences are likely a consequence of the importance placed on emotional moderation in Chinese culture whereas among-sub-group differences are because of the importance placed on relatedness by British/Canadian females. Study results also suggested that there are significant differences within these four sub-groups; albeit not to the degree that was expected. Upon further deliberation, it appears that self-determination theory does help predict the facilitation of intrinsic motivation for British/Canadians during leisure with a close friend—although it underestimates the importance of effort for males and relatedness for females in this process. In contrast, it was found that the cross-cultural research cited in this study's literature review was a relatively poor predictor of which factors would foster Chinese/Canadians' intrinsic motivation more during leisure with a close friend. One reason this may have occurred is that, in contrast with the current study where participants self-selected an intrinsically motivated activity, Iyengar and Lepper (1999) and Heine et al.'s (1999) research involved the use of puzzles and games under laboratory conditions. As Waterman et al. (2003) have stated, "the trade-off for being able to control relevant variables has been the use of activities of limited personal importance or salience in the lives of research participants" (p. 1447). Correspondingly, because autonomy/mutual choice was not more facilitative than relatedness and role fulfillment, nor was competence more facilitative than effort, neither should these findings be construed as support for SDT.

The last finding could have important theoretical implications. As Walker et al. (2005) discussed in greater detail, theoreticians have long privileged autonomy/choice at the expense of other leisure attributes. Although this appears to make some sense for Euro-North American males, it seems at least somewhat problematic for Euro-North American females and non-North American males and females. Rather, for what is the

majority of North America and most of the rest of world, relatedness is apparently at least as important as autonomy/choice. As Kagitçibaşı (2005) recently stated:

Even though autonomy and relatedness, being basic human needs, can and do coexist, it appears that individualistic societies have recognized and nourished the need for autonomy at the cost of ignoring, even suppressing, the equally basic need for relatedness; collectivistic societies have done the reverse. (p. 417)

The above behoves leisure scholars to consider developing new theoretical frameworks that incorporate both autonomy/choice *and* relatedness. Nor should the inclusion of effort and role fulfillment be overlooked as these variables too appear to be important aspects of leisure. Simply put, leisure studies needs more inclusive and comprehensive theories; theories that do not have autonomy/choice as their *ne plus ultra*, least we be found to be both andro- and ethnocentric.

This study could also have important practical implications. Providing choice and, to a lesser extent, increasing competence are often-stated recreation programming objectives (cf. Glancy, 2006). But for a Chinese immigrant interested in, for example, doubles badminton, the opportunity to take a course with a close friend (i.e., relatedness), to learn how to overcome fatigue during a long match (i.e., effort), and to discover how to better communicate court responsibilities with his partner (i.e., role fulfillment), may be nearly or equally as important as being able to make a flick serve (i.e., competence), or jointly choosing from a number of badminton courses at a variety of times at a plethora of locations (i.e., autonomy/mutual choice). Moreover, if the recreation agency offering this program is not aware of the above, then it may be committing institutional discrimination—that is, “organizationally or community prescribed practices, motivated by neither prejudice nor intent to harm that nevertheless have a negative and differential impact on members of a subordinate group” (Feagin & Eckberg, 1980, p. 12). Further discussion of institutional discrimination as it applies to leisure practice can be found in Scott (2005) and Walker et al. (2005).

There are, as with any type of research, limitations to this study. Autonomy, for example, was conceptualized in terms of choice, in contrast with Deci and Ryan’s (2000) much broader construct. As well, although gender was controlled for, other socio-demographic characteristics differed between British/Canadians and Chinese/Canadians; potentially, these differences could affect the facilitation of intrinsic motivation. Additionally, the six facilitator scales require further refinement, particularly autonomy/mutual choice. Perhaps most importantly, this study examined how participants *perceived* varying six facilitators would affect their intrinsic motivation during leisure with a friend. Thus, follow-up research investigating the *actual* effect of these variables is needed. This recommendation should not be misconstrued as a “fatal flaw” in, but rather as a natural outcome of, the current study. In fact, without this earlier exploratory work, the effect of effort and role fulfillment on intrinsic motivation might have been overlooked by future researchers. Moreover, even if recreationists’ perceptions are eventually found to diverge from reality, work in other areas (e.g., the gambler’s fallacy, Tversky & Kahneman, 1971; the fundamental attribution error, Ross, 1977) has shown that discrepancies between the two has often stirred formerly unasked research questions and steered researchers in previously unexplored directions.

Future research should also examine the effect of these six facilitators on intrinsic motivation in non-leisure domains (e.g., paid work, formal schooling) and in different

social situations (e.g., alone, with one's spouse/partner). As well, based on Walker, Jackson, and Deng's (in press, a; in press, b) discovery that Canadian and Mainland Chinese undergraduates experienced different leisure constraints depending upon the type of self-construal they had (Markus & Kitayama, 1991), inclusion of this intervening variable could also prove beneficial. Potentially, by using the experience sampling method (Csikszentmihalyi, Larson, & Prescott, 1977), one study could accomplish much of above, and in an ecologically valid manner. Lastly, replication with other ethnic and cultural groups (e.g., Poles, Polish/Americans, Mainland Chinese) is strongly recommended.

In conclusion, whether one believes that intrinsic motivation is leisure's quintessential quality (Russell, 2002) or not, the leisure studies field is uniquely positioned to conduct research on this topic. This point was made clear to the author during an informal conversation with a mainstream social psychologist who said that intrinsic motivation was extremely difficult to study because it was so rare in everyday life. Graef et al.'s (1983) findings support this psychologist's statement, as they found that intrinsic motivation occurred less than 4% of the time during people's employment. On the other hand, these researchers also discovered that intrinsic motivation occurred about 40% of the time during people's leisure; a magnitude of ten versus paid work but still a minority of their total leisure time. Arguably, the more we learn about how to facilitate intrinsic motivation—and, critically, how this process varies by ethnicity and gender—the more frequent *and* widespread these experiences will become during leisure.

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