APPROACH-AVOIDANCE MOTIVATION ACROSS CULTURES

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Abstract

People everywhere strive for an ideal view of the self, but the conception of "ideal" differs importantly across cultures. In Western societies, the ideal self entails the possession of high self-esteem, whereas in East Asian cultures the ideal self entails maintenance of "face," or successful performance of social roles and obligations. Within each cultural context, aspirations for an ideal self are facilitated by a network of psychological processes. One such psychological process is approach and avoidance motivations: approach motivation is useful for Westerners' pursuit of high self-esteem whereas avoidance motivation is useful for East Asians' concerns for face maintenance. Review of prior research renders support to this theorizing. Because approach and avoidance motivations are fundamental psychological processes, cross-cultural research on this topic is a great venue for investigating the ways in which culture shapes psychological processes. This dissertation examines the implication of cultural differences in approach and avoidance motivations in two domains. Studies 1 and 2 investigated the motivational consequences of a fit between culturally encouraged motivation and focus of self-regulation that a task at hand calls for. In comparisons of Canadians and Japanese, these studies found that individuals' motivation for a task is enhanced when culturally encouraged motivation matched with focus of self-regulation required for the task. The second set of studies (Study 3 and 4) examined cognitive consequences of approach-avoidance motivation cultural difference. These studies found that a type of information that people are attuned to differs as a function of cultural differences in approach-avoidance motivations. Implications of the findings and future directions are discussed.

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Acknowledgements

"Success is going from failure to failure without losing enthusiasm." -Winston Churchill.

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Chapter 1: Approach and avoidance motivation across cultures[1]

The distinction between approach and avoidance motivation has been of enormous value for understanding the functioning of the mind. It has also been of much use in aiding cultural psychologists to better understand the interplay between culture and mind. Cultural psychology has primarily been concerned with how culture and mind influence each other (Shweder, 1991). In particular, much research has been conducted exploring how individuals from different cultures vary in terms of how they evaluate themselves (Cousins, 1989; Markus & Kitayama, 1991). Various findings about cultural differences in the self-concept have led to a number of different accounts for why people view themselves in the ways that they do (e.g., Cohen, Hoshino-Browne, & Leung, 2007; Heine, Lehman, Markus, & Kitayama, 1999; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Markus & Kitayama, 1991). It is the thesis of this chapter that the framework of approach and avoidance motivation can integrate many of the findings from the cross-cultural exploration of the self-concept.

This chapter first introduces how the approach and avoidance distinction fits with cross-cultural research on self-evaluation. Then, we discuss how the approach and avoidance framework can be utilized in developing a number of novel hypotheses in cross-cultural research. Last, we review how cross-cultural research can, in turn, be utilized to inform the mechanisms underlying approach and avoidance motivation. As the

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majority of this research has contrasted East Asians and Westerners, our focus for the review is also on research with these cultures.

1.1. The Conception of "A Good Person" Across Cultures

How do individuals from different cultures vary in their self-evaluations? At one level, it would seem that there should be much universality with respect to how people evaluate themselves. For example, people everywhere should be motivated to view themselves as living up to the cultural norms with respect to what it is to be a good person (Norenzayan & Heine, 2005). At the same time, however, to the extent that the nature of social relations varies across cultures, what constitutes a culturally valued person should also vary across cultures (Heine et al., 1999). In individualistic cultures such as much of the West, people learn (via their socialization, participating in cultural institutions, interaction with others) that it is valued to think of themselves as a unique and self-sufficient entity. Toward this objective, individuals come to focus on their positive self-characteristics in order to positively distinguish themselves from others – that is, they come to have high self-esteem. According to this view, strategies which help enable individuals to have high self-esteem should be favored in individualistic cultures. Self-enhancement, defined as the motivation to elaborate on positive self-characteristics relative to negative ones, is a motivation that should thus serve to bring one closer to the culturally-shared ideals of a good person in such cultural contexts.

In contrast, in hierarchical collectivistic cultural environments such as East Asia, where the self is embedded in a social network, being a culturally-valued person importantly entails maintaining one's "face." Face has been defined as "the respectability and/or deference which a person can claim for himself from others by virtue of the

relative position he occupies in his social network and the degree to which he is judged to have functioned adequately in that position" (p. 883, Ho, 1976). Being a good person in East Asian contexts is associated with being a person with a successfully maintained face. We submit that concepts such as face and self-esteem are universally accessible (they can be seen as *existential universals*; Norenzayan & Heine, 2005), however, we argue that self-esteem is prioritized more in the West whereas face is prioritized more in East Asia (Hamamura & Heine, 2007; Heine, 2005).

One line of evidence for this framework comes from cross-cultural research on subjective well-being (SWB). To the extent that self-esteem and face are essential aspect of being a good person in North American and East Asian cultural contexts respectively, it follows that having high self-esteem in North America and successfully maintained face in East Asia should be an important predictor of SWB in the respective cultural contexts. Several studies have found such a pattern. For example, in a series of studies investigating emotional experiences that are predictive of SWB in the US and Japan, Kitayama, Mesquita, and Karasawa (2006) found that whereas SWB of Americans was closely associated with emotions that stem from one's independent self (e.g., proud, self-respect, angry), SWB of Japanese was better predicted by emotional experiences that stem from one's interdependent self (e.g., respect, sympathy, ashamed). Similarly, in their investigation of the effect of goal attainment on SWB, Oishi and Diener (2001) found that whereas SWB of European-Americans increased when the goals pursued and attained were private goals (e.g., doing something fun and exciting), SWB of Asian-Americans increased when the goals pursued were more relational in nature (e.g., doing something to please parents and friends). Furthermore, when Kwan, Bond, and

Singelis (1997) compared the role of self-esteem and relationship harmony as predictors of SWB between Americans and Hong Kong Chinese, it was found that whereas SWB of Americans was better predicted by self-esteem, among Hong Kong Chinese, both self-esteem and relationship harmony were important predictors of SWB. These findings converge in suggesting the importance of having high self-esteem in North American cultures and successfully maintained face in East Asian cultures for subjective well-being.

1.2.   Cultural Variations in Self-Enhancement and Self-Criticism

To the extent that the motivation to view the self in a positive light is prioritized to a greater extent among Westerners than it is for East Asians, it follows that there should be cultural variation in the extent to which Westerners and East Asians self-enhance and self-criticize (Heine et al., 1999). This rationale is supported by many studies. A recent meta-analysis of all published cross-cultural self-enhancement studies (k = 46) showed a striking absence of self-enhancement among East Asians (d = -.01) compared to strong evidence for self-enhancement among Westerners (d = .87; Heine & Hamamura, 2007). The conclusion we draw from these findings is that self-enhancing motivations are more prevalent among Westerners than among East Asians.

There are three objections that are commonly made regarding this conclusion: (1) Cross-cultural self-enhancement research does not take account the fact that different cultures value different characteristics: People everywhere self-enhance on those characteristics that are important to them, and the cultural differences would be greatly reduced if East Asians were asked to evaluate themselves in domains that are of much concern to them (e.g., Kobayashi & Brown, 2003; Sedikides, Gaertner, & Toguchi,

2003); (2) Collectivistic East Asians self-enhance by enhancing their group selves (Brown & Kobayashi, 2002; Muramoto & Yamaguchi, 1997); and (3) The cultural differences reflect different self-presentation norms across cultures, not differences in people's motivations (Kobayashi & Greenwald, 2003; Kurman, 2003). We discuss each of these alternative accounts below.

The first account predicts universal self-enhancement on those characteristics that an individual views to be important, and it suggests that this pattern should hold across cultures. A few studies have indeed found this pattern (e.g., Brown & Kobayashi, 2002; Sedikides et al., 2003) although the opposite pattern (i.e., East Asians show *less* self-enhancement for *more* important traits) has been found in other studies (e.g., Heine & Lehman, 1995; Heine & Renshaw, 2002; Kitayama et al., 1997). A meta-analysis of all cross-cultural studies on this topic reveals that cultures differ significantly on the correlation between traits importance and self-enhancement in that East Asians do not exhibit the pattern of greater self-enhancement for traits that are especially important to them ($r = -.01$) whereas Westerners do ($r = .18$; Heine, Kitayama, & Hamamura, 2007; note that a meta-analysis with different inclusion criteria conducted by Sedikides, Gaertner, & Vevea, 2005, concluded that East Asians do self-enhance more for important traits; also see Sedikides, Gaertner, & Vevea, 2007). Furthermore, the few studies that do identify tendencies among East Asians to self-enhance more on especially important domains do so almost exclusively with measures of the "better-than-average effect," a measure that is compromised by a person positivity bias (Klar & Giladi, 1997). When this bias is circumvented, the better-than-average effect no longer reveals self-enhancement among East Asians for especially important traits (Hamamura, Heine, & Takemoto, 2007;

Heine et al., 2007). Hence, although this alternative account benefits from a certain intuitive appeal, overall, the data do not support it.

The second account, that East Asians direct their self-enhancing motivations to their groups, has also been explored in a number of different studies. Two cross-cultural studies have found no difference between Westerners and East Asians in their group-enhancing tendencies (Brown & Kobayashi, 2002; Endo, Heine, & Lehman, 2000). These two studies are in support of this alternative account. On the other hand, eight studies have found that Westerners enhance their groups more than East Asians. This cultural difference has emerged for people's evaluations of their romantic relationships (Endo et al., 2000), their family members, universities, and social groups (Heine & Lehman, 1997), their evaluations of their countries (R. Rose, 1985), their cities (Kitayama, Palm, Masuda, Karasawa, & Carroll, 1996), their children (Stevenson & Stigler, 1992), their sports teams (Snibbe, Kitayama, Markus, & Suzuki, 2003), their gender (Bond, Wan, Hewstone, & Chiu, 1985), and in their collective self-esteem (Crocker, Luhtanen, Blaine, & Broadnax, 1994). In contrast, we are not aware of any published studies that have found greater group-enhancing tendencies among East Asians compared with Westerners which would be expected if this alternative account was correct. In sum, a consideration of the cross-cultural research on this topic finds that, overall, group-enhancing tendencies are stronger among North Americans than among East Asians. Hence, the observed cultural variation in self-enhancement cannot be explained in terms of any purported East Asian group-enhancing motivations.

The third alternative account for cultural variation in self-enhancement is that the differences arise from self-presentational norms and not from genuine cultural differences

in motivations. That is, either East Asians are feigning modesty or Westerners are feigning bravado, and this is preventing us from having an accurate view of each culture's self-enhancing motivations. This is a very difficult question to assess with confidence as our ability to assess the private thoughts of individuals is limited by our methods. Nonetheless, two studies that sought private behavioral measures of self-enhancement found that whereas Westerners showed a self-enhancing pattern of responses, East Asians showed an overall self-critical pattern of responses (Heine et al., 2001; Heine, Takata, & Lehman, 2000). That the East Asian responses were, if anything, more self-critical in these studies than in questionnaire studies would argue against the account that East Asians are feigning modesty. Furthermore, a number of other studies have also found clear evidence for a lack of East Asian self-enhancement using measures that would seem protected from self-presentational concerns (e.g., Oishi & Diener, 2003; Ross, Heine, Wilson, & Sugimori, 2005; White & Lehman, 2005).

However, research conducted with implicit measures of self-esteem, such as the Implicit Associates Test and the birthday-number effect, reveal that East Asians have as positive views of themselves as do Westerners (Kitayama & Karasawa, 1997; Kitayama & Uchida, 2003; Kobayashi & Greenwald, 2003; Yamaguchi et al., 2007). These latter findings might indicate that cultures do not differ in the extent to which people come to have warm feelings about themselves. Rather, the cultural differences primarily lie with respect to how positively people assess their own competence (cf., Tafarodi & Swann, 1996). The question of what cross-cultural comparisons of implicit measures of self-esteem are telling us will be further illuminated once we have a better understanding

of what these measures are assessing (Bosson, Swann, & Pennebaker, 2000; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005).

In summary, the available evidence converges to indicate a pronounced cultural discrepancy in tendencies to self-enhance. Whereas Westerners consistently show evidence for strong self-enhancing motivations, East Asians do not (Heine & Hamamura, 2007). The relative absence of evidence for self-enhancing motivations among East Asians calls into question the ways that East Asians evaluate themselves. As the next section discusses, the distinction of approach and avoidance motivation is of much utility for illuminating how East Asians and Westerners work toward becoming a good person in their respective cultures.

1.3. Cultures and Self-Regulation: Approach and Avoidance Motivation

Self-regulation coordinates cognitions, emotions, and behaviors and is essential for the attainment of goals and the adherence to social norms (Baumeister & Heatherton, 1996). To the extent that social norms and goals which govern psychological processes are importantly influenced by culture, patterns of self-regulation should also differ across cultures.

Self-esteem and face are two ways to instantiate the motivation to be a culturally valued person, and their relative prioritization varies across cultures. These two conceptions of being a good person can be distinguished from each other in a number of ways. One important distinction is with respect to their ease of management. On the one hand, self-esteem is something that is relatively easy to manage as individuals have at least some control over it. People have a variety of self-deceptive tactics at their disposal by which they can interpret self-relevant information in a way that is flattering to

themselves. For example, they can attend to and elaborate more on positive informative, they can exaggerate the positivity of their self-assessments, or they can make attributions for their performance in a self-serving way (see Taylor & Brown, 1988 for a review). In Western contexts these can be viewed as adaptive strategies, as they bring the self closer to the culturally-valued goal of having a positive view of one's self. These various self-deceptive tactics can be seen as examples of an approach motivation, as they are all consistent with the goal of securing positive information about the self. People who are self-enhancing work towards securing a positive self-view and largely ignore, or discount, information that would threaten this conception. According to this view, approach motivations are integral in Westerners' attempts to build upon the self-resource that they tend to prioritize: namely, self-esteem.

In contrast, compared to self-esteem, face is considerably more difficult to manage. On the one hand, there are few opportunities for people to increase their face because the amount of face that people can claim is determined by their position in the social hierarchy. Such opportunities are limited to occasions in which one moves up the social hierarchy (e.g., a graduate student becomes a professor). On the other hand, face is chronically vulnerable for loss because it is successfully managed only to the extent that the individual is able to live up to the expectations of others - expectations that are often unknown to the individual and that vary depending on the audience. In other words, unlike self-esteem, the fate of one's face is largely determined by relevant others' evaluations. For example, if a teacher is perceived as incompetent by students, his or her face as a teacher may be in jeopardy. Hence, face is something that is difficult to gain but easy to lose. To the extent that East Asians are concerned about this inherently vulnerable

resource, their self-regulation should be oriented more towards avoiding the loss of face. In other words, an avoidance orientation should be more adaptive for East Asians in their quest to become a culturally-valued person (Hamamura & Heine, 2007; Heine, 2005).

In sum, we propose that different conceptions of what it entails to be a good person, and an inherent asymmetry between the ease of acquiring self-esteem and of not losing face, gives rise to cultural variation in self-regulation: an approach focus is more adaptive and should be more common among North Americans, whereas an avoidance focus is more adaptive and should predominate more among East Asians.

This rationale is confirmed by a growing corpus of cross-cultural research. First, there is evidence that people are socialized to develop particular motivational styles in culturally distinct ways from a very young age. For example, in their investigation of Japanese and American mothers' behaviors, Caudill and Weinstein (1969) identified a strong positive correlation between the frequency of American mothers' chatting with their babies and their infants' "happy vocals." In contrast, there was no correlation between the mothers' chatting and the babies' "unhappy vocals." The American mother thus appears to elicit and reinforce her baby's happy vocalizations, reflecting an approach orientation in her mothering style. In contrast, the chatting of Japanese mothers was significantly correlated with their babies' unhappy vocals and not with their happy vocals. Caudill and Weinstein argued that the Japanese mothers' chatting served to soothe their babies – an effort to eliminate their problems, rather than to approach happy states. Similar findings have been documented from a set of studies in which parents in Taiwan and the US were interviewed regarding their attitudes towards child-rearing (Miller, Wang, Sandel, & Cho, 2002; Miller, Wiley, Fung, & Liang, 1997). The researchers

explored the stories that parents often used about the child's past behaviors to socialize them. European-American parents more frequently described telling stories that focused on a past success of the child. In contrast, the Taiwanese parents were more likely to tell stories about past transgressions of the child (Miller et al., 1997; also see similar findings by Wang, 2004). East Asians thus appear to be socialized to adopt a predominantly avoidance outlook, whereas Westerners are socialized more towards an approach orientation.

These cultural differences in socialization are paralleled by many findings for cultural differences in approach-avoidance motivation later in life. For example, Elliot, Chirkov, Kim, and Sheldon (2001) found that Asian-Americans and Koreans were more likely to embrace avoidance personal goals relative to European-Americans. Quite often, for many participants of Asian background, important concerns are to avoid not living up to others' expectations. Likewise, A. Y. Lee, Aaker, and Gardner (2000) found that Americans rated a tennis game that was framed as an opportunity to win as more important than one that was framed as an opportunity to avoid a loss, whereas the reverse pattern was observed among Chinese participants. Winning is thus not necessarily the name of the game – in some cultures it may be better labeled "not losing." Similarly, Lockwood, Marshall, and Sadler (2005) found that negative role models – someone that people want to ensure they do not become like – are more motivating for Asian-Canadians, whereas positive role models are more motivating for European-Canadians. The findings of these studies converge across methods to demonstrate that a concern with *not failing* is of greater motivational significance among East Asians than Westerners.

Cultural variation in approach and avoidance motivation is also evident in studies that have explored people's reactions to successes and failures. On the one hand, successes are diagnostic of one's strengths and they thus should be particularly motivating for individuals with an approach focus (Idson & Higgins, 2000). Moreover, in Western cultural contexts where motivations to positively distinguish the self from others are prioritized, individuals would fare better by adopting an approach focus to reveal their strengths. According to this reasoning, Westerners who succeed on a task should be more motivated to continue working on the task relative to East Asians. In contrast, failures are diagnostic of one's shortcomings and these should be especially motivating for those with an avoidance focus (Idson & Higgins, 2000). The identification of shortcomings is particularly informative for the purpose of self-improvement and face management as shortcomings indicate where one's face might be vulnerable to loss. It follows, then, that East Asians who have failed on a task and have identified a shortcoming should be more motivated to continue working on that task, in an effort to correct the shortcoming, compared to Westerners.

This rationale has been confirmed in a number of studies. In one series of studies, Canadians and Japanese participants received either success or failure feedback on a task (Heine et al., 2001). When they were subsequently given an opportunity to work again on that task in private, Canadians who received success feedback persisted longer compared to those receiving failure feedback (replicating a pattern that has been identified in a number of Western studies; Feather, 1966; Shrauger & Rosenberg, 1970), indicating an approach orientation. In stark contrast, Japanese who received failure feedback persisted longer than those receiving success feedback, indicating an avoidance orientation.

Similarly, Oishi and Diener (2003) found that whereas European-American participants who performed well on a task tended to choose the same task over a different task two weeks later, such a pattern was not observed among Asian-Americans; that is their successful performance did not affect Asian-Americans' subsequent choice of which task to choose. Again, this is evidence for cultural variation in approach-avoidance motivation. Similarly, much research finds that East Asians tend to view negative feedback as more useful to them, whereas Westerners are more likely to show the opposite pattern (e.g., Heine et al., 2000; White & Lehman, 2005).

To the extent that cultural differences in approach and avoidance motivation underlie this observed difference, an experimental procedure that manipulates one's motivation should reverse this pattern. Indeed, when an approach motivation is experimentally induced to Japanese participants (by reading a scenario of someone receiving a bonus for good performance), positive feedback was evaluated as equally useful as negative feedback eliminating the pattern observed in a control as well as in an avoidance condition (a scenario of a salary reduction for poor performance) in which participants evaluated negative feedback to be more useful than positive (Ozaki, 2005). In other words, Japanese evaluations of positive and negative feedback became more similar to Western norms when they explicitly adopted an approach orientation. This suggests that a key reason for cultural differences in the perceived utility of positive feedback relates to chronic cultural differences in approach motivation.

Furthermore, manipulations that prime East Asian identity have also been shown to affect approach-avoidance motivation in ways that are parallel to the findings from cross-cultural studies. For example, in one study Briley and Wyer (2002) gave Hong

Kong Chinese a questionnaire that was written either in English or Cantonese. The rationale was that the language should prime bilingual participants' respective networks of cultural information (see Ross, Xun, & Wilson, 2002). They found that those participants who answered the questionnaires in English were more approach focused as indicated by their greater endorsement of approach-oriented proverbs (e.g., "try any doctor when critically ill"), compared to those who answered the questionnaire in Cantonese, who showed greater endorsement of avoidance proverbs (e.g., "ponder your faults and you will avert misfortune"; also see conceptually similar findings from Briley, Morris, & Simonson, 2005). That is, bilingual participants would switch between motivational states depending on the language that they spoke, indicating that their two languages were each associated with motivational states that paralleled the cultural differences.

The above studies provide convergent evidence that East Asians are more likely to adopt an avoidance outlook compared with Westerners. However, there is one area of research that consistently reveals the opposite pattern of results. When it comes to taking risks in financial ventures, a number of studies indicate that, relative to Westerners, East Asians are more likely to prefer pursuing more risky, although potentially lucrative, strategies. For example, Hsee and Weber (1999) compared the financial decision making of Chinese and Americans in response to a number of hypothetical scenarios. In these studies, when participants were asked to choose between an uncertain loss of a large amount of money (e.g., 50% chance of losing $2000) and a certain loss of a smaller amount of money (e.g., losing $1000 for sure), the Chinese were less risk averse (i.e., they were more willing to take a risk and choose the uncertain option) in comparison with

Americans. This pattern of cultural differences was replicated by Mandel (2003) with a prime of independence-interdependence, which suggests that financial risk-seeking is associated with feelings of interdependence. Hsee and Weber (1999) explained these findings in terms of a "social cushion" that protects interdependent individuals from financial misfortune. If times go bad, the reasoning goes, people with a stronger social network have a greater social cushion (e.g., friends, extended family) that can help absorb the blow of their misfortune. However, this kind of cushion should only be able to mitigate the impact of financial misfortunes. A social network is of less utility for absorbing the negative consequences of risky behavior that makes one's health or social reputation vulnerable (Mandel, 2003). Hence, there appears to be an important boundary condition regarding cultural variation in terms of an avoidance focus. In domains, such as making investment choices, where one's interdependent network can potentially cushion the harmful effects of a loss, East Asians do not show more of an avoidance orientation compared to Westerners.

In summary, a growing body of cross-cultural research on approach-avoidance motivation yields a converging set of findings. East Asians tend to adopt more of an avoidance outlook compared with Westerners. These cultural differences have been identified with a number of different East Asian and Western samples, with a wide variety of different experimental methods, and for a number of domains, with the important exception of investment choices.

1.4. Cross-Cultural Research with an Approach-Avoidance Framework

The distinction of approach-avoidance motivation is an integral aspect of many psychological theories (e.g., Cacioppo, Gardner, & Berntson, 1997; Elliot & Church,

1997; Higgins, 1997). As such, the observed cultural variation in approach and avoidance motivation allows for the generation of a number of novel hypotheses regarding cultural differences in a variety of psychological phenomena. We discuss some of these below.

1.4.1.   Regulatory fit.

Much recent research has suggested that regulatory fit, or the concordance between one's chronic motivations (approach or avoidance motivations) and the focus of self-regulation that is demanded by a particular task at hand (e.g., trying to win or trying to prevent a loss) serves to boost one's motivation (Aaker & Lee, 2006; Spiegel, Grant-Pillow, & Higgins, 2004). In contrast, a mismatch between chronic motivation and focus of self-regulation might lead to negative consequences. For instance, much prior research conducted in North America reports a link between having an avoidance focus and poor physical and mental health (Elliot & Sheldon, 1998; Elliot, Sheldon, & Church, 1997). One possible conclusion is that this relation reflects some universal disadvantages associated with an avoidance focus. However, another possibility is that this relation reflects the consequences of having a mismatch between culturally-encouraged approach orientations among Westerners and an individual-level avoidance focus. Perhaps having goals that are at odds with dominant cultural values leads to negative outcomes because of a lack of regulatory fit. This latter alternative suggests that the negative health consequences that have been observed among Western individuals with an avoidance focus should not be as prevalent among East Asians. A few studies find evidence that is consistent with this reasoning. For example, Elliot et al. (2001) found that an avoidance orientation was not a negative predictor of subjective well-being for Asian-Americans or Koreans, although it was for Americans. Likewise, Takagi (2005) found that whereas

avoidance personal goals were predictive of greater loneliness and worse health outcomes among Canadians, they actually predicted lower levels of loneliness and better health among Japanese. Furthermore, Heine and Lehman (1999) found that a correlation between an actual-ideal self-discrepancy (which indicates the extent to which one is failing at an approach goal) and depression was significantly weaker among Japanese compared to Canadians, suggesting that unsatisfied approach motivation was less of a problem for Japanese individuals. In sum, these studies indicate that negative mental and physical health outcomes of particular kinds of regulatory focus that are found among North Americans are largely absent among East Asians. These findings suggest that such negative outcomes might arise from a lack of regulatory fit rather than being due to an avoidance orientation per se.

1.4.2. Temporal construal

Approach and avoidance motivations have also been linked to temporal construals. Temporal construal theory states that future events are construed differently depending on their temporal distance: that is, distant future events tend to be represented in an abstract, general, and decontextualized manner, whereas near-future events tend to be represented in a concrete and contextualized manner (Trope & Liberman, 2003). A recent study has demonstrated that an approach focus is more common when a distant future perspective is taken, whereas an avoidance focus comes to predominate when a near future perspective is adopted (Pennington & Roese, 2003; see also Förster & Higgins, 2005). The rationale is that the concern with security that characterizes an avoidance focus is better achieved when people direct their attention to concrete aspects of events where potential threats might lie. On the other hand, the concern with growth which

underlies an approach focus is better achieved when people concentrate on abstract aspects of events where opportunities for growth can be more commonly found.

This line of research suggests that there may be potential cultural differences in temporal construals. It follows that East Asians, with their relatively more dominant avoidance orientation, should tend to be more near-future oriented in their construal of future events. In contrast, Westerners, with a more pronounced approach orientation, should be relatively more distant-future oriented. A few preliminary studies have found evidence for such a pattern. For example, Hamamura and Heine (2006) found that the personal goals of Japanese tend to be of a shorter time frame relative to the personal goals of Canadians (i.e., goals that can be achieved in days and weeks as opposed to months and years). Likewise, A. Y. Lee (2006) reported that when Asian-Americans and Koreans were asked to imagine an event that they would be responsible for organizing, they tended to assume that it would occur nearer in the future (e.g., the event will take place in 2 weeks) compared to European-Americans who tended to have more distant future orientations (e.g., 2 years from now). Hence, preliminary findings suggest that temporal construal is another phenomenon that is implicated by cross-cultural research on approach-avoidance motivation.

1.4.3.   Anticipating future events

Cultural differences in approach-avoidance motivation also have implications for how people from different cultures anticipate future events. Whereas anticipating positive events should enhance the motivation of those with an approach focus, anticipating negative events should be more motivating and lead to more productive outcomes among those with an avoidance focus (Grant & Higgins, 2003). Consistent with this rationale,

cross-cultural research has found greater optimism for Westerners relative to East Asians (Y. T. Lee & Seligman, 1997). For example, Heine and Lehman (1995) found that, compared to Canadians, Japanese were less optimistic in that they were much less likely to believe that positive events (e.g., living past the age of 80, owning a home sometime in the future) would happen to them. Furthermore, Japanese were more pessimistic than Canadians in that they were more likely to believe that negative events (e.g., have a heart attack before the age of 50, drop out of university) would happen to them. Other studies have found further support for this cultural difference (e.g., Chang & Asakawa, 2003; Hamamura et al., 2007; J. P. Rose, Endo, Windschitl, & Suls, in press). In sum, North Americans and East Asians differ in terms of the kinds of future they anticipate as cultural variation in approach-avoidance motivation would predict.

1.4.4.   Emotional consequences

Much research has revealed that approach and avoidance motivations are associated with different emotional states. Specifically, emotional experiences associated with approach motivation tend to be located along a dimension that ranges from cheerfulness to dejection (e.g., happy, disappointed). In contrast, the emotional experiences that are associated with an avoidance focus tend to fall along a dimension that runs from relaxation to agitation (e.g., calm, uneasy; Carver & Scheier, 1998; Higgins, Shah, & Friedman, 1997; Mowrer, 1960). The different emotional consequences of approach and avoidance motivation predict that there should be cultural variation in the kinds of emotions that people experience and seek. For example, Lee et al (2000) found that when Americans reacted to a scenario of a tennis match, they more strongly experienced emotions that were associated with an approach motivation (i.e., happiness,

dejection) compared with those associated with an avoidance focus (i.e., relaxation, agitation). In contrast, Chinese participants showed the precise opposite pattern, and experienced avoidance related emotions more strongly than they did approach related emotions.

This proposed cultural difference in emotional experience has also been observed in recent research by Tsai and her colleagues (Tsai, Knutson, & Fung, 2006; Tsai, Louie, Chen, & Uchida, 2007; Tsai, Miao, & Seppala, 2007; Tsai, Miao, Seppala, Fung, & Yeung, 2007). They propose that cultures vary in the kinds of emotional states that people are motivated to pursue – something which they term "ideal affect." Westerners, they argue, are more likely to seek out high arousal positive (HAP) emotional states, such as feeling enthusiastic, or excited. These states would seem to parallel those achieved through the successful completion of approach goals. In contrast, East Asians, they argue, strive to attain low arousal positive (LAP) emotional states, such as feeling calm and relaxed. These parallel those states achieved by successfully completing avoidance goals.

Evidence for these cultural differences has been found in several studies. For example, Chinese were found to value LAP emotions more and HAP emotions less compared with Americans (Tsai et al., 2006). Furthermore, these preferred emotional states appear to be learned through socialization. An investigation of bestselling children's storybooks in Taiwan and the US revealed that Taiwanese storybooks contained more characters with calm expressions, and who were engaged in less arousing activities, compared to American storybooks, and children preferred those characters who demonstrated the culturally-appropriate emotions (Tsai, Louie et al., 2007). Further evidence for this cultural difference has been identified in the dominant religious

teachings and practices of the respective cultures. A content analysis of classic Christian and Buddhist texts (e.g., the Gospels of the Bible and the Lotus Sutra), as well as contemporary Christian and Buddhist self-help books, revealed that high arousal states were encouraged more in the Christian texts whereas the low arousal states were more encouraged in the Buddhist texts. Moreover, Tsai and colleagues noted that some Christian sects include enthusiastic religious practices such as jumping, shouting, and applause, whereas Buddhist religious practices more often emphasize meditation and the calming of one's mind (Tsai, Miao, & Seppala, 2007). In sum, these studies indicate that different emotional states are preferred across cultures, and these are consistent with predictions that are derived from cultural variation in approach-avoidance motivation.

In summary, approach-avoidance motivation has been found to implicate a number of psychological phenomena. Given the cultural variability that has been documented with respect to approach and avoidance orientations, it follows that East Asians and Westerners should also differ in terms of the various phenomena that are influenced by different motivational outlooks. Convergent cross-cultural differences have been documented for studies of regulatory fit, temporal construal, optimism and pessimism, and emotional consequences.

1.5. Underlying Mechanisms

As reviewed above, many studies have found evidence for cross-cultural variation in approach-avoidance motivation and in psychological phenomena that are implicated by the respective motivations. However, it is important to underscore that these cultural differences do not suggest that either type of motivation is absent across cultures. Indeed, the distinction between approach and avoidance focus evident across species, even for the

most basic organisms (e.g., amoebas), underscoring the fundamental role both modes of motivation play for many, if not all, living organisms (Elliot, 1999). It seems reasonable to assume that the two modes of motivation are *functional universals*, or mental process that universally serve the same function, although their accessibility may differ importantly across cultures (Norenzayan & Heine, 2005). To the extent that approach-avoidance motivation is universally available, it suggests that observed cultural differences could be reduced or even reversed with appropriate experimental manipulations. Cross-cultural studies that investigate how the correlates of approach and avoidance motivation are influenced by various manipulations are critical for identifying the mechanisms that underlie these motivations. This is one way that cultural variation can be used to inform the nature of universal theories: it serves to spotlight where one should more effectively target the search for mechanisms. Whatever variables underlie observed cultural differences in motivations likely play a key role in the manifestation of the motivations in other contexts as well.

For example, one way to consider why East Asian and Western cultures differ in their reliance on approach and avoidance motivation is to explore another variable for which East Asians and Westerners have been shown to reliably differ: lay theories of achievement (Dweck & Leggett, 1988). Many studies have found evidence for heightened entity theories of achievement among Westerners compared with East Asians (e.g., Norenzayan, Choi, & Nisbett, 2002; Stevenson & Stigler, 1992). How might entity theories of achievement be associated with an approach motivation? To the extent that people view abilities as largely fixed and entity-like, it follows that they should not devote much effort towards tasks in which they perform poorly. Entity theorists would

fare better by avoiding tasks in which they fail, as future efforts would be unlikely to lead to successes. In contrast, entity theorists should focus their effort on tasks in which they perform well, as they will likely continue to succeed on those tasks in the future. Hence, entity theorists are able to approach positive outcomes by devoting effort to tasks at which they are especially talented. On the other hand, incremental theorists would seem to fare better by devoting their effort to those tasks for which there is the most room for improvement. Future failures can be avoided if one is able to improve one's abilities on the tasks by making sufficient efforts. If this reasoning is correct, entity theorists should be more likely to demonstrate an approach motivation and incremental theorists should evince more of an avoidance motivation.

One study tested this hypothesis by manipulating American and Japanese participants' theories of achievement (Heine et al., 2001, Study 3). Participants in one condition were led to believe that a task had an incremental basis (i.e., trying harder would improve one's performance), whereas those in another condition were led to believe the task had an entity basis (i.e., performance was largely unrelated to efforts). A third condition, a control group, received no manipulation. Participants' persistence on a task following failure was then assessed. For Americans, the entity manipulation had no effect on their performance: they persisted as long on the task if they had received entity instructions as they did in the control group. Apparently, the entity instructions were redundant with most American participants' lay theory of achievement regarding this task. In contrast, Americans who received incremental instructions persisted significantly longer on the task, suggesting that the incremental instructions heightened American participants' avoidance focus. On the other hand, Japanese who received incremental

instructions persisted as long as those who were in the control group – these instructions did not appear to contain novel information to them. In contrast, Japanese who received the entity instructions persisted less than those in the other conditions, suggesting that the instruction heightened their approach focus. In sum, manipulations of lay theories yield parallel findings as those from previous cross-cultural studies, and suggest that entity theorists should be more likely to demonstrate approach motivations, whereas incremental theorists should be more likely to demonstrate avoidance motivations.

Cultural differences in approach and avoidance orientations have also been explained in another way. The most commonly discussed psychological difference between East Asians and Westerners is that East Asians tend to view the self as part of an interdependent network, whereas Westerners more commonly view the self as an independent agent (Markus & Kitayama, 1991). Could these cultural differences in self-concept help make sense of the observed cultural differences in approach-avoidance motivation? In one study, Lee et al. (2000, Study 3) contrasted how Americans viewed a tennis game depending on whether it was described as a team event (which should prime thoughts of interdependence) or as a solo event (which should prime thoughts of independence). When Americans received the interdependence prime, they viewed tennis games framed as an opportunity to avoid a loss as more important than those games framed as opportunities for victories – the precise pattern that Lee et al. had demonstrated among Chinese.

Another source of evidence that cultural differences in the self-concept underlie differences in approach-avoidance motivation comes from research on regulatory fit. Regulatory fit theory, as discussed earlier, suggests that a fit between focus of

self-regulation that a particular task at hand demands (i.e., approaching a success or avoiding a failure) and people's chronic motivation focus (i.e., approach or avoidance) serves to intensify emotional and motivational reactions (Aaker & Lee, 2006; Higgins & Spiegel, 2007). To the extent that independence and interdependence are associated with approach and avoidance motivations, respectively, it follows that when independence is primed people should experience regulatory fit with approach stimuli, whereas when interdependence is primed people should experience regulatory fit with avoidance stimuli. This rationale was tested in a study by Aaker and Lee (2001). They had participants evaluate a product that was presented to them either in approach or avoidance terms (i.e., participants were asked to focus on the presence or absence of positive or negative qualities) after they were primed with independence or interdependence. The participants had a more favorable evaluation of the product presented in approach terms under the independence priming whereas the product presented in avoidance term was evaluated more favorably in the interdependence condition. These studies suggest that self-concept is importantly related to approach-avoidance orientation.

In summary, cultural variation in psychological processes can serve to spotlight the underlying mechanisms of those processes. Knowing that East Asians are more likely to adopt an avoidance orientation compared with Westerners has led to research that demonstrates that avoidance orientations are facilitated by other variables which are more characteristic of those from East Asian cultures: namely, incremental theories of abilities and interdependent self-concepts.

1.6. Chapter Conclusion

The distinction of approach and avoidance orientations provides new insight into cross-cultural research on motivations. We suggest that cultural differences exist in approach-avoidance motivation because cultures shape the kinds of self-resources that people come to prioritize. In Western contexts, people come to prioritize a self-view that includes the sense that one is an autonomous and self-sufficient entity; a view that is fostered by having high self-esteem. Furthermore, self-esteem is a resource that is accumulated relatively easily given people's abilities to selectively attend to information that bolsters it. For this reason, a chronic approach focus is favored. In contrast, in East Asian contexts, people come to favor a self-view that includes the sense that one maintains a valuable position within a social network; a view that is fostered by successfully maintaining one's face. Because face, in comparison with self-esteem, is a resource that is always vulnerable as it is subject to the whims of others in one's social network, a habitual avoidant outlook is more functional. These different ways of evaluating the self importantly shape the relative predominance of approach and avoidance motivation across cultures.

Approach and avoidance motivations are fundamental and universal psychological processes. It is precisely these kinds of core psychological processes which should provide some of the most interesting vistas from which to observe how the mind is shaped by culture. Based on this thesis, this dissertation examines cultural difference in approach and avoidance motivation in two domains. The first set of studies (Studies 1 and 2) investigates the motivational consequences of a match between culturally encouraged motivation and focus of self-regulation required for a task at hand. Building

on the theory of regulatory fit, we predicted that individuals' motivation is enhanced when culturally encouraged mode of motivation matches with focus of self-regulation required for task at hand. This hypothesis was examined in comparisons of Canadians and Japanese. We predicted that motivations of Canadians, who are embedded to an approach-oriented culture, should be enhanced with an approach oriented task instruction. In contrast, we predicted that motivations of Japanese participants, who are embedded to an avoidance-oriented culture, should be enhanced with an avoidance oriented task instruction.

The second set of studies (Study 3 and 4) examines cognitive consequences of approach-avoidance motivation cultural difference. The hypothesis under investigation is that a type of information that people are attuned to differs as a function of cultural differences in approach-avoidance motivations. Specifically, we predicted that Canadians are more attuned to approach oriented information whereas Japanese are more attuned to avoidance oriented information.

References

Aaker, J. L., & Lee, A. Y. (2001). " I" seek pleasures and" we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research, 28*, 33-49.

Aaker, J. L., & Lee, A. Y. (2006). Understanding regulatory fit. *Journal of Marketing Research, 43*, 15-19.

Baumeister, R. F., & Heatherton, T. F. (1996). Self-regulation failure: An overview. *Psychological Inquiry, 7*, 1-15.

Bond, M. H., Wan, K. C., Hewstone, M., & Chiu, C. (1985). Group-serving attributions across intergroup contexts: cultural differences in the explanation of sex-typed behaviours. *European Journal of Social Psychology, 15*, 435-451.

Bosson, J. K., Swann, W. B., & Pennebaker, J. W. (2000). Stalking the perfect measure of implicit self-esteem: The blind men and the elephant revisited. *Journal of Personality and Social Psychology, 79*, 631-643.

Briley, D. A., Morris, M., & Simonson, I. (2005). Biculturals and shifting strategies: The role of language and audiences in eliciting cultural styles of decision making. *Journal of Consumer Psychology, 15*, 351–362.

Briley, D. A., & Wyer, R. S. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of Consumer Research, 29*, 400-415.

Brown, J. D., & Kobayashi, C. (2002). Self-enhancement in Japan and America. *Asian Journal Of Social Psychology, 5*, 145-168.

Cacioppo, J. T., Gardner, W. L., & Berntson, G. G. (1997). Beyond bipolar conceptualizations and measures: The case of attitudes and evaluative space. *Personality and Social Psychology Review, 1*, 3.

Carver, C. S., & Scheier, M. F. (1998). *On the Self-Regulation of Behavior*: Cambridge University Press.

Caudill, W., & Weinstein, H. (1969). Maternal care and infant behavior in Japan and America. *Psychiatry, 32*, 12-43.

Chang, E. C., & Asakawa, K. (2003). Cultural variations on optimistic and pessimistic bias for self versus a sibling: is there evidence for self-enhancement in the west and for self-criticism in the east when the referent group is specified? *Journal of Personality and Social Psychology, 84*, 569-581.

Cohen, D., Hoshino-Browne, E., & Leung, A. K. Y. (2007). Culture and the structure of personal experience: Insider and outsider phenomenologies of the self and social world. *Adances in Experimental Social Psychology, Vol 39, 39*, 1-67.

Cousins, S. D. (1989). Culture and self-Perception in Japan and the United-States. *Journal of Personality and Social Psychology, 56*, 124-131.

Crocker, J., Luhtanen, R., Blaine, B., & Broadnax, S. (1994). Collective self-esteem and psychological well-being among White, Black, and Asian college students. *Personality and Social Psychology Bulletin, 20*, 503.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256-273.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*, 169-189.

Elliot, A. J., Chirkov, V. I., Kim, Y., & Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science, 12*, 505-510.

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 72*, 218-232.

Elliot, A. J., & Sheldon, K. M. (1998). Avoidance personal goals and the personality-illness relationship. *Journal of Personality and Social Psychology, 75*, 1282-1299.

Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being. *Personality and Social Psychology Bulletin, 23*, 915.

Endo, Y., Heine, S. J., & Lehman, D. R. (2000). Culture and positive illusions in close relationships: How my relationships are better than yours. *Personality and Social Psychology Bulletin, 26*, 1571.

Feather, N. T. (1966). Effects of prior success and failure on expectations of success and subsequent performance. *Journal of Personality and Social Psychology, 3*, 287-298.

Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science, 16*, 631-636.

Grant, H., & Higgins, E. T. (2003). Optimism, promotion pride, and prevention pride as predictors of quality of life. *Personality and Social Psychology Bulletin, 29*, 1521.

Hamamura, T., & Heine, S. J. (2006). *Self-regulation across cultures: new perspectives on culture and cognition research.* Paper presented at the International Conference of the Cognitive Science, Vancouver, BC.

Hamamura, T., & Heine, S. J. (2007). Self-enhancement, self-improvement, and face among Japanese. In E. C. Chang (Ed.), *Self-Criticism and Self-Enhancement: Theory, Research, and Clinical Implications* (pp. 105-122). Washington, DC: American Psychological Association.

Hamamura, T., Heine, S. J., & Takemoto, T. R. S. (2007). Why the better-than-average effect is a worse-than-average measure of self-enhancement: An investigation of conflicting findings from studies of East Asian self-evaluations. *Motivation and Emotion, 31*, 247-259.

Heine, S. J. (2005). Constructing good selves in Japan and North America. In R. M. Sorrentino, D. Cohen, J. M. Olson & M. P. Zanna (Eds.), *Culture and Social Behavior: The Tenth Ontario Symposium* (pp. 115-143). Hillsdale, NJ: Lawrence Erlbaum.

Heine, S. J., & Hamamura, T. (2007). In search of East Asian self-enhancement. *Personality and Social Psychology Review, 11*, 4-27.

Heine, S. J., Kitayama, S., & Hamamura, T. (2007). Inclusion of additional studies yields different conclusions: Comment on Sedikides, Gaertner, Vevea (2005), Journal of Personality and Social Psychology. *Asian Journal Of Social Psychology, 10*, 49-58.

Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., et al. (2001). Divergent consequences of success and failure in Japan and North America: An

investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology, 81*, 599–615.

Heine, S. J., & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the West feel more vulnerable than the East. *Journal of Personality and Social Psychology, 68*, 595-607.

Heine, S. J., & Lehman, D. R. (1997). The cultural construction of self-enhancement: An examination of group-serving biases. *Journal of Personality and Social Psychology, 72*, 1268-1283.

Heine, S. J., & Lehman, D. R. (1999). Culture, self-discrepancies, and self-satisfaction. *Personality and Social Psychology Bulletin, 25*, 915.

Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review, 106*, 766-794.

Heine, S. J., & Renshaw, K. (2002). Interjudge agreement, self-enhancement, and liking: Cross-cultural divergences. *Personality and Social Psychology Bulletin, 28*, 578.

Heine, S. J., Takata, T., & Lehman, D. R. (2000). Beyond self-presentation: Evidence for self-criticism among Japanese. *Personality and Social Psychology Bulletin, 26*, 71.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280-1300.

Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology, 72*, 515-525.

Higgins, E. T., & Spiegel, S. (2007). Promotion and prevention strategies for self-regulation. *Handbook of Self-Regulation: Research, Theory, and Applications*.

Ho, D. Y. F. (1976). Concept of face. *American Journal of Sociology, 81*, 867-884.

Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the implicit association test and explicit self-report measures. *Personality and Social Psychology Bulletin, 31*, 1369.

Hsee, C. K., & Weber, E. U. (1999). Cross-national differences in risk preference and lay predictions. *Journal of Behavioral Decision Making, 12*.

Idson, L. C., & Higgins, E. T. (2000). How current feedback and chronic effectiveness influence motivation: Everything to gain versus everything to lose. *European Journal of Social Psychology, 30*, 583-592.

Kitayama, S., & Karasawa, M. (1997). Implicit self-esteem in Japan: Name letters and birthday numbers. *Personality and Social Psychology Bulletin, 23*, 736.

Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology, 72*, 1245-1267.

Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology, 91*, 890-903.

Kitayama, S., Palm, R. I., Masuda, T., Karasawa, M., & Carroll, J. (1996). Optimism in the US and pessimism in Japan: Perceptions of earthquake risk. *Unpublished manuscript, Kyoto University, Kyoto, Japan.*

Kitayama, S., & Uchida, Y. (2003). Explicit self-criticism and implicit self-regard: Evaluating self and friend in two cultures. *Journal of Experimental Social Psychology, 39*, 476-482.

Klar, Y., & Giladi, E. E. (1997). No one in my group can be below the group's average: a robust positivity bias in favor of anonymous peers. *Journal of Personality and Social Psychology, 73*, 885-901.

Kobayashi, C., & Brown, J. D. (2003). Self-esteem and self-enhancement in Japan and America. *Journal of Cross-Cultural Psychology, 34*, 567.

Kobayashi, C., & Greenwald, A. G. (2003). Implicit-explicit differences in self-enhancement for Americans and Japanese. *Journal of Cross-Cultural Psychology, 34*, 522.

Kurman, J. (2003). Why is self-enhancement low in certain collectivist cultures?: An Investigation of two competing explanations. *Journal of Cross-Cultural Psychology, 34*, 496.

Kwan, V. S., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038-1051.

Lee, A. Y. (2006). *Temporal perspectives of the independence and interdependent self.* Paper presented at the Hong Kong International Conference on Cultural Influences on Behavior.

Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122-1134.

Lee, Y. T., & Seligman, M. E. P. (1997). Are Americans more optimistic than the Chinese. *Personality and Social Psychology Bulletin, 23*, 32-40.

Lockwood, P., Marshall, T. C., & Sadler, P. (2005). Promoting success or preventing failure: cultural differences in motivation by positive and negative role models. *Personality and Social Psychology Bulletin, 31*, 379.

Mandel, N. (2003). Shifting selves and decision making: The effects of self-construal priming on consumer risk-taking. *Journal of Consumer Research, 30*, 30-40.

Markus, H. R., & Kitayama, S. (1991). Culture and the self - implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

Miller, P. J., Wang, S., Sandel, T., & Cho, G. E. (2002). Self-esteem as folk theory: A comparison of European American and Taiwanese mothers' beliefs. *Parenting, 2*, 209-239.

Miller, P. J., Wiley, A. R., Fung, H., & Liang, C. H. (1997). Personal storytelling as a medium of socialization in Chinese and American families. *Child Development, 68*, 557-568.

Mowrer, O. H. (1960). *Learning theory and behavior*: Wiley New York.

Muramoto, Y., & Yamaguchi, S. (1997). Another type of self-serving bias: Coexistence of self-effacing and group-serving tendencies in attribution in the Japanese culture. *Japanese Journal of Experimental Social Psychology, 37*, 65-75.

Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inference: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin, 28*, 109-120.

Norenzayan, A., & Heine, S. J. (2005). Psychological universals: What are they and how can we know? *Psychological Bulletin, 131*, 763-784.

Oishi, S., & Diener, E. (2001). Goals, culture, and subjective well-being. *Personality and Social Psychology Bulletin, 27*, 1674.

Oishi, S., & Diener, E. (2003). Culture and well-being: The cycle of action, evaluation, and decision. *Personality and Social Psychology Bulletin, 29*, 939.

Ozaki, Y. (2005). *Effect of regulatory focus on success/failure feedback.* . Paper presented at the Annual Meeting of the Japanese Society of Social Psychology.,

Pennington, G. L., & Roese, N. J. (2003). Regulatory focus and temporal distance. *Journal of Experimental Social Psychology, 39*, 563-576.

Rose, J. P., Endo, Y., Windschitl, P. D., & Suls, J. (in press). Cultural differences in unrealistic optimism and pessimism: The role of egocentrism and direct vs. indirect comparison measures *Personality and Social Psychology Bulletin*.

Rose, R. (1985). National pride in cross-national perspective. *International Social Science Journal, 37*, 85-96.

Ross, M., Heine, S. J., Wilson, A. E., & Sugimori, S. (2005). Cross-cultural discrepancies in self-appraisals. *Personality and Social Psychology Bulletin, 31*, 1175.

Ross, M., Xun, W. Q., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin, 28*, 1040.

Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology, 84*, 60-79.

Sedikides, C., Gaertner, L., & Vevea, J. L. (2005). Pancultural self-enhancement reloaded: A meta-analytic reply to Heine (2005). *Journal of Personality and Social Psychology, 89*, 539-551.

Sedikides, C., Gaertner, L., & Vevea, J. L. (2007). Inclusion of theory-relevant moderators yield the same conclusions as Sedikides, Gaertner, and Vevea (2005): A meta-analytical reply to Heine, Kitayama, and Hamamura (2007). *Asian Journal Of Social Psychology, 10*, 59-67.

Shrauger, J. S., & Rosenberg, S. E. (1970). Self-esteem and the effects of success and failure feedback on performance. *Journal of Personality, 38*, 404-417.

Shweder, R. A. (1991). *Thinking Through Cultures: Expeditions in Cultural Psychology*: Harvard University Press.

Snibbe, A. C., Kitayama, S., Markus, H. R., & Suzuki, T. (2003). They saw a game: A Japanese and American (football) field study. *Journal of Cross-Cultural Psychology, 34*, 581.

Spiegel, S., Grant-Pillow, H., & Higgins, E. T. (2004). How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology, 34*, 39-54.

Stevenson, H. W., & Stigler, J. W. (1992). *The learning gap: why our schools are failing and what we can learn from Japanese and Chinese education*: Summit Books.

Tafarodi, R. W., & Swann, W. B. (1996). Individualism-collectivism and global self-esteem: Evidence for a cultural trade-off. *Journal of Cross-Cultural Psychology, 27*, 651.

Takagi, K. (2005). *Approach-avoidance goals and psychological well-being, health, and interpersonal relationship outcomes across Euro-Canadian, Japanese, and Mexican cultures.* Unpublished Master's thesis, University of British Columbia, Vancouer, BC.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*, 193-210.

Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review, 110*, 403-421.

Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology, 90*, 288-307.

Tsai, J. L., Louie, J. Y., Chen, E. E., & Uchida, Y. (2007). Learning what feelings to desire: Socialization ofiIdeal affect through children's storybooks. *Personality and Social Psychology Bulletin, 33*, 17.

Tsai, J. L., Miao, F. F., & Seppala, E. (2007). Good feelings in Christianity and Buddhism: Religious differences in ideal affect. *Personality and Social Psychology Bulletin, 33*, 409.

Tsai, J. L., Miao, F. F., Seppala, E., Fung, H. H., & Yeung, D. Y. (2007). Influence and adjustment goals: sources of cultural differences in ideal affect. *Journal of Personality and Social Psychology, 92*, 1102-1117.

Wang, Q. (2004). The emergence of cultural self-constructs: Autobiographical memory and self-description in European American and Chinese children. *Developmental Psychology, 40*, 3-1513.

White, K., & Lehman, D. R. (2005). Culture and social comparison seeking: The role of self-motives. *Personality and Social Psychology Bulletin, 31*, 232.

Yamaguchi, S., Greenwald, A. G., Banaji, M. R., Murakami, F., Chen, D., Shiomura, K., et al. (2007). Apparent universality of positive implicit self-esteem. *Psychological Science, 18*, 498-500.

Chapter 2: Enhanced motivation under regulatory fit: A cross-cultural analysis[2]

Prior to the World Cup Soccer 2006, the manager of the Japanese national team, a former soccer superstar Zico, attributed the team's poor offensive performance to a culture that is apprehensive of failure. He implied that the offensive players of the Japanese national team, who are trained to possess an offensive mindset by focusing on few successful shoots in a game over multiple failed attempts, had failed to live up to their potential because the Japanese culture that they are embedded in does not sanction such a frame of mind ("Soccer: Zico," 2005, July 6). The idea captured in this observation that a mismatch between culturally encouraged motivations (e.g., avoid failure) and the focus of self-regulation required for a task at hand (e.g., focus on success over failure) would result in deteriorated task performance has an important parallel to the theory of regulatory fit.

Regulatory fit is experienced when individuals' chronic approach or avoidance motivation concords with the focus of self-regulation required for a task at hand (for a review see, Higgins, 2000). For an approach-oriented person, a task that demands a focus on positive outcomes or *promotion focus* (e.g., scoring a goal in a game of soccer) would lead to the experience of regulatory fit. In contrast, for an avoidance-oriented person, a task that calls for a focus on preventing negative outcomes, or *prevention focus* (e.g., defending a goal) would lead to the regulatory fit.

Research in this area demonstrates a wide array of psychological (mostly positive) consequences of regulatory fit. For example, in a series of studies, participants

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experiencing the state of regulatory fit were found not only able to perform better on an

anagram task compared to participants who were not experiencing the regulatory fit

(Shah, Higgins, & Friedman, 1998), but also experienced a greater level of enjoyment of

the task (Freitas & Higgins, 2002). When it comes to shopping, studies show that people

experiencing regulatory fit are willing to pay more for a product. In one such study,

participants were given a choice between a pen and clearly much more desirable coffee

mug and were asked how much they are willing to pay for the coffee mug. Participants

whose chronic approach and avoidance motivation was measured prior to the study

performed this task under two conditions. Those assigned to the promotion condition

were asked to think of what they would gain by choosing the mug. On the other hand,

those assigned to the prevention condition were asked to think of what they would miss

by not choosing the mug. In this study, it was found that participants experiencing

regulatory fit were willing to pay more for the mug compared to those experiencing a

mismatch between their chronic motivation and regulatory focus (Higgins, Idson, Freitas,

Spiegel, & Molden, 2003). In addition, the experience of regulatory fit enhances people's

motivation. When participants were told either that eating fruit and vegetables would lead

to a healthy life (promotion message) or *not* eating fruit and vegetables would lead to

*un*healthy life (prevention message), those participants who experienced regulatory fit

(i.e., approach focused participants receiving the promotion message or avoidance

focused participants receiving the prevention message) ate more fruit and vegetables

compared to others who were not experiencing regulatory fit (Spiegel, Grant-Pillow, &

Higgins, 2004; for a similar finding, see Sherman, Mann, & Updegraff, 2006). In sum,

much research shows the positive consequences of regulatory fit: when people's chronic

approach or avoidance motivation matches with the situational focus of their self-regulation, they express a greater level of enjoyment in the situation, and attach greater value and experience increased motivation for a task.

2.1. Regulatory Fit in Cross-Cultural Research

As reviewed earlier in the introduction of this dissertation, cultures differ on approach-avoidance motivations: North Americans are predominately more approach focused whereas East Asians are predominately more avoidance focused (Elliot, Chirkov, Kim, & Sheldon, 2001; Lee, Aaker, & Gardner, 2000; Lockwood, Marshall, & Sadler, 2005). On the topic of regulatory fit, this cultural difference in approach-avoidance motivation implicates two new ways of conceptualizing regulatory fit. The first is a fit between culturally encouraged motivation and individuals' chronic motivation.

To the extent that culture and mind are mutually constitutive (Shweder, 1991), motivation that is culturally encouraged is the motivation that is predominant in the population. Hence, North Americans on average are relatively more approach focused than East Asians who are relatively more avoidance focused. One implication of this subtle distinction between culturally encouraged motivation and individuals' chronic motivation is that it enables theorizing of different consequences of chronic approach or avoidance motivation across cultures. For example, much research conducted in North America has reported positive consequences (e.g., health, subjective well-being) of chronic approach motivation and negative consequences of chronic avoidance motivation (Elliot & Sheldon, 1998; Elliot, Sheldon, & Church, 1997). However, recent research indicates that these consequences of approach and avoidance chronic motivation are largely confined to North America. For example, Elliot et al. (2001) found that whereas

an avoidance orientation was a negative predictor of subjective well-being among Americans, this was not the case for Asian-Americans or Koreans. Likewise, Takagi (2005) found that whereas avoidance personal goals were predictive of greater loneliness and worse health outcomes among Canadians, they actually predicted lower levels of loneliness and better health among Japanese. Hence, these findings suggest different consequences of chronic approach or avoidance motivation across cultures. In a culture where an approach motivation is encouraged, chronic approach motivation is associated with positive outcomes whereas chronic avoidance motivation is a negative predictor of these outcome variables. In contrast, in a culture where avoidance motivation is culturally encouraged, chronic avoidance motivation is not associated with negative outcomes and actually is predictive of at least some positive outcomes. Hence, consequences of chronic approach and avoidance motivation depend on the kind of motivation encouraged within culture. In sum, the fit between culturally encouraged motivation and individuals' chronic motivation represents one of the two ways in which regulatory fit occurs in cross-cultural research.

The second type of regulatory fit is a fit between culturally encouraged motivation and the regulatory focus that a particular task at hand calls for. For example, do North Americans, due to their exposure to approach oriented North American cultures, excel on a task when they are told that they would earn a bonus for good performance? Likewise, do East Asians, due to their exposure to avoidance oriented East Asian cultures, excel on a task when they are told that they would be punished for poor performance? The current research examines this question. In two experiments, we compared task performance of Canadian and Japanese participants after they received promotion or prevention focused

task instruction. We predict that a fit between culturally encouraged motivation and focus of self-regulation temporarily induced by a laboratory manipulation would result in enhanced motivation for a task at hand. Specifically, we predict that motivations of Canadians are heightened with a promotion instruction whereas motivations of Japanese are heightened with a prevention instruction.

2.2. Study 1

2.2.1. Method

Seventy-four students of University of British Columbia who were born in North America (25 males and 49 females, mean age = 20.26) and sixty-three Japanese nationals who had resided in Vancouver for less than 1 year at the time of study (15 males and 48 females, mean age = 22.97) participated in the study. To make the level of education comparable between samples, Japanese participants had to have at least some university level education in order to participate in the study. Canadian participants received extra credit toward their course grade, and Japanese participants received $10 for participation. The two samples did not differ on the proportion of gender, (χ^2 [1, N = 137] = 1.64, ns). Japanese were significantly older than Canadian participants, F (1,134) = 16.93, p < .001. However, age did not correlate with any of the analyses reported below.

Participants received a sheet of paper with several passages written in Thai and were asked to count a number of specified Thai character (e.g., "ฤ") contained in each passage. Thai was chosen as both English and Japanese speakers are unfamiliar with its characters. After a few practice problems, participants solved 4 problems for 20 minutes. Participants were told that they would receive points based on their performance on the

task. However, the specific instruction that participants received varied across conditions. On the one hand, those assigned to the promotion instruction condition (via random assignment) were told that they would earn 50 points for each correct answer and that if the points earned exceeded the average, they would receive \$2. In contrast, in the prevention instruction condition, participants were told that they would start the task with 200 points and lose 50 points for each incorrect answer. In addition, participants in the prevention condition were told that they would start the task with \$2 but lose this money if the points remaining from the task were below the average. Note that the potential pay off from the two instructions was the same in that the same level of performance would result in the same number of points and the same amount of money (e.g., in both conditions, a participant who answered 3 out of the 4 problems correctly would get 150 points and \$2). Finally, participants completed a measure of chronic approach and avoidance motivation (Lockwood, Jordan, and Kunda, 2002). Sample items from this scale are "In general, I'm focused on preventing negative events in my life," and "I frequently imagine how I will achieve my hopes and aspirations." After the experiment, participants were debriefed about the study, and all participants received \$2 regardless of their performance.

Study materials were translated by a group of bilinguals and the discrepancies were resolved by discussion.

2.2.2. Results

Canadians and Japanese participants differed significantly on their persistence for the practice problems, $F(1, 135) = 4.18$, $p < .05$ ($M = 77.78$ seconds, $SD = 30.25$ for

Canadians and $M = 89.86$ seconds, $SD = 38.81$ for Japanese). Hence, this variable was

entered as a covariate in the analysis of task persistence reported below.

ANCOVA was performed on persistence with culture (Canadian vs. Japanese)

and conditions (promotion vs. prevention instruction) as factors controlling for

persistence in the practice. This analysis revealed a significant interaction between

culture and condition, $F(1,133) = 4.09$, $p < .05$, $\eta^2 = .03$ (Table 2.1).

Table 2.1. Persistence on the task (Study 1)

	Persistence (seconds)	
	Japanese	Canadians
Promotion	678.21a	596.64a
condition	(282.77)	(203.36)
Prevention	771.67a	569.26a
condition	(243.77)	(196.76)

Numbers in parentheses are standard deviations.

Different subscripts within a column indicate significant difference at $p < .05$.

Japanese participants persisted marginally significantly longer in the prevention condition

compared to the promotion condition, $F(1,62) = 3.50$, $p = .07$, $\eta^2 = .06$. In contrast, no

such difference was found among Canadian participants, $F < 1$, *ns*. The analysis also

revealed a significant main effect of culture, $F(1,132) = 8.86$, $p < .01$, $\eta^2 = .06$. On

average, Japanese participants spent just over 12 minutes on the task, ($M = 722.71$, $SD = 266.98$) whereas Canadian participants spent just under 10 minutes on the task ($M = 583.69$, $SD = 199.37$). The main effect of the task instruction was not significant, $F (1,132) = 1.71$, *ns.*

In sum, we found the interaction between culture and condition: for Japanese participants, motivation for the task was higher in the prevention instruction condition relative to the promotion instruction condition. In contrast, no such difference was found among Canadian participants.

Finally, we analyzed chronic approach and avoidance motivations. Canadians were significantly more approach oriented (M = 3.94, SD = .50) compared to Japanese (M = 3.60, SD = .60), $F (1, 135) = 13.31$, $p < .001$, whereas the two groups did not differ on chronic avoidance motivation, $F < 1$. There was no main effect of promotion or prevention instructions or the interaction between culture and instructions on the measure of chronic motivations. Persistence was marginally significantly correlated with avoidance ($r = .15$, $p = .08$) but was uncorrelated with approach ($r = -.09$, *ns*), and the magnitudes of these correlations did not vary across instruction conditions or cultures. When chronic approach and avoidance were entered in regression in predicting persistence along with persistence from practice, culture, condition, and the interaction between culture and condition, neither approach nor avoidance was a significant predictor of persistence. Hence, although Canadians and Japanese differed in chronic approach and avoidance motivations, this difference did not account for the interaction between culture and task instructions. We will discuss this point in general discussion.

Next, participants' performance on the task was analyzed. First, Canadians and Japanese participants did not differ significantly on their performance on the practice problems, $F < 1$. Next, we analyzed the interaction between culture and condition. ANOVA on performance with culture and condition as factors revealed that the interaction between culture and condition was not significant, $F < 1$, *ns* (Table 2.2), not replicating the pattern found in the analysis of persistence.

Table 2.2. Performance on the task (Study 1)

	Performance	
	Japanese	Canadians
Promotion condition	1.94a (1.12)	1.21a (.95)
Prevention condition	2.27a (1.11)	1.29a (.96)

Numbers in parentheses are standard deviations.

Different subscripts within a column indicate significant difference at $p < .05$.

This analysis also showed that main effect of condition was not significant, $F < 1$, although main effect of culture was significant, $F (1,133) = 23.51, p < .001, \eta^2 = .15$. Japanese participants (M = 2.10, SD = 1.12) performed this task significantly better than Canadian participants (M = 1.24, SD = .95). Interestingly, this main effect remained

significant even after controlling for the cultural difference in task persistence, F (1,132) = 14.24, $p < .001$, $\eta^2 = .10$, suggesting the possibility that Japanese participants found the task easier than Canadian participants.

2.2.3. <u>Discussion</u>

The interaction between culture and condition was found in the analysis of task persistence. Japanese participants persisted longer with the prevention task instruction compared to the promotion task instruction whereas no such difference was found among Canadian participants. In contrast, an analysis on task performance did not reveal such an interaction. Hence, even though longer persistence and higher performance were predicted from enhanced motivation, they revealed an inconsistent pattern. One possible reason for this inconsistency may be that the task used in this study was such that the amount of time spent was not predictive of performance. However, the correlation between persistence and performance was significantly positive, r (137) = .39, $p < .001$, and the magnitude of this correlation did not significantly vary as a function participants' cultural backgrounds or conditions.

Another possibility might be that this inconsistency is suggesting a pattern of results that is contrary to the hypothesis. That is, it might be that when the focus of task instruction matched with culturally encouraged motivation, participants actually became less *efficient* on the task, taking a longer time to achieve the same level of performance. To test this possibility, in Study 2 we tested participants' performance under time constraints. To the extent that individuals' motivation for a task is enhanced when the task instruction is congruent with culturally encouraged motivation, participants experiencing such a fit (i.e., Canadians in the promotion condition and Japanese in the

prevention condition) should experience increased motivation which should result in a better performance on the task. In contrast, to the extent that this fit would lead to the lower efficiency on the task, participants experiencing such a fit would perform worse on the task under a time limit compared to others who are not experiencing such a fit.

2.3. Study 2

2.3.1. Method

Sixty-six students of University of British Columbia who were born in North America (23 males and 43 females, mean age = 21.89) and 75 Japanese nationals who had been residing in Vancouver for less than 1 year at the time of study (13 males and 62 females, mean age = 24.08) participated in the study. To make the level of education comparable between samples, Japanese participants had to have at least some university level education in order to participate. Canadian students received extra credit toward their course grade, and Japanese participants received $10 for participation. The two samples differed significantly on the proportion of gender, (χ^2 [1, N = 138] = 5.6, p <. 05), but the analysis reported below did not interact with gender. Japanese participants were significantly older than Canadian participants, F (1,138) = 6.65, p < .05, but age was uncorrelated with the dependent variable reported below.

The task used was a pattern recognition task. First, participants saw a table of characters with corresponding numbers (e.g., ◆ corresponding to 1, ♉ corresponding to 4). Then, after some practice, a new table of 40 characters with 40 open cells underneath was presented. Participants were asked to type in the number that corresponded to each character. Participants were instructed to perform as much of this task as possible in 1 minute.

Similar to Study 1, participants were randomly assigned either to a promotion or prevention instruction condition. In the promotion instruction condition, participants were told that they would earn 5 cents for each correct answer. In contrast, in the prevention condition, participants were told that they would start the task with $2 but lose 5 cents for each incorrect answer or unanswered question. Note that the potential payoff from the two instructions was the same so that participants with the same level of performance would receive the same amount of money. Finally, participants completed a measure of chronic approach and avoidance motivation (Carver & White, 1994). Sample items from this scale are "When I see an opportunity for something I like, I get excited right away," and "I worry about making mistakes." After the experiment, participants were debriefed about the study and received the amount of money they earned from the study.

All the materials used were translated by a group of bilinguals and discrepancies were resolved by discussion.

2.3.2. <u>Results and Discussion</u>

On the pattern recognition task, the number of problems participants attempted in 1 minute ($M = 28.4$, $SD = 3.90$) did not differ significantly between cultures ($F < 1$) nor conditions, $F(1, 136) = 2.15$, $p > .10$. Interaction between culture and condition was also not significant ($F < 1$).

Next, we analyzed participants' accuracy on the task. Accuracy was obtained by dividing number of items that participants answered correctly by number of items attempted. With this index, however, about one quarter of the participants had the perfect accuracy, creating the ceiling effect. For this reason, the index was logarithmically

transformed, and the subsequent inferential statistics were performed on this transformed

index. For the ease of interpretation, descriptive statistics are reported in its original

percentage unit. An ANOVA on accuracy with culture (Canada vs. Japan) and condition

(promotion vs. prevention instruction) as factors revealed a significant interaction

between culture and condition, $F(1, 135) = 8.03$, $p < .01$, $\eta^2 = .06$ (Table 2.3).

Table 2.3. Task performance (Study 2)

	Accuracy (%)	
	Japanese	Canadians
Promotion	87.16a	91.07a
condition	(20.12)	(18.36)
Prevention	88.88a	77.46b
condition	(22.73)	(29.38)

Numbers in parentheses are standard deviations.

Different subscripts within a column indicate significant difference at $p < .05$

Canadian participants were significantly more accurate in the promotion condition

compared to the prevention condition, $F(1,63) = 9.00$, $p < .01$, $\eta^2 = .13$. In contrast, there

was no significant difference among Japanese between the two conditions, $F < 1$. The

main effect of culture was not significant, $F(1,136) = 1.04$, ns. The main effect of

condition was marginally significant, $F(1,136) = 3.35$, $p = .07$, $\eta^2 = .02$: participants were more accurate in the promotion condition relative to the prevention condition.

Similar to Study 1, the interaction between culture and instruction was not moderated by chronic approach and avoidance motivations: Canadians and Japanese did not differ significantly either on approach $F(1, 139) = 1.17$, *ns* nor avoidance, $F(1, 139) = 2.45$, *ns*. There was no main effect of promotion or prevention instructions or the interaction between culture and instructions on the measure of chronic motivations. In addition, neither chronic approach or avoidance was correlated with the task performance (rs < .12), and these correlations did not differ significantly across instruction condition or cultures.

In sum, an interaction between culture and task instruction was found in that Canadian participants were able to solve more problems correctly under the time limit in the promotion instruction condition relative to the prevention instruction condition whereas no such difference was found among Japanese participants.

2.4. General Discussion

In two studies, we found an interaction between culture and promotion and prevention task instructions. Participants' motivation for a task was higher when the focus of the instruction they received was congruent with culturally encouraged motivation. Hence, the motivation of Canadian participants who are embedded in an approach oriented culture was higher in the promotion condition relative to the prevention condition. On the other hand, the motivation of Japanese participants who are embedded in an avoidance oriented culture was higher in the prevention condition relative to the promotion condition.

The current research is faced with a few limitations. One of them is that the interaction between culture and condition found in Study 1 and 2 was driven by a simple main effect found only in one culture: In Study 1, the motivation of Japanese participants, as measured by persistence, was marginally significantly higher in the prevention condition relative to the promotion condition, but the motivation of Canadians did not differ between the two conditions. In contrast, in Study 2 Canadian participants performed the task more efficiently in the promotion condition relative to the prevention condition, although no such difference was found among Japanese. Hence, although the interaction between culture and condition was found in both studies, the source of this interaction differed between the two studies.

One speculation that this pattern of results affords is on the potentially task dependent nature of the findings reported from this research. For example, for the task of finding a character from a passage (Study 1), the promotion and prevention instructions were effective for some reason only for Japanese participants. Similarly, for the task of recognizing a pattern (Study 2), for some reason the instructions were effective only among Canadians participants. It is unclear what underlies such (inconsistent) cultural difference in the potency of task instructions. However, as this issue potentially limits the generalizability of the reported findings, in the future research it is important to validate the effectiveness of task instructions used in the study.

Another limitation of the current research is the findings from the measures of chronic approach and avoidance motivations. In Study 1, Canadians were found to be significantly more approach oriented than Japanese, although the two samples did not differ on avoidance. In contrast, in Study 2 the two samples did not differ either on

approach or avoidance. These results, however, need to be interpreted carefully as cross-cultural comparisons of means obtained from self-report Likert scale are documented to be unreliable due to a number of methodological issues (e.g., Hamamura, Heine, & Paulhus, 2008; Heine, Lehman, Peng, & Greenholtz, 2002). More troubling issue is that the measures of chronic approach and avoidance motivation did not predict the outcome variable (e.g., chronic approach motivation did not predict performance in the promotion condition and avoidance motivation did not predict performance in the prevention condition). One possibility is that approach-avoidance motivations that are accessible to individuals as beliefs and values are somewhat distinct from their behavioral inclinations. That is, it may be that responses that participants indicate on self-report measure are somewhat distinct of the ways in which they react to gain- and loss-oriented instructions. In support of this consideration, a number of studies on approach and avoidance motivations have documented the role of chronic approach and avoidance motivations using less explicit measures, for example coding personal goals (Elliot et al., 1997, 2001; Elliot & Sheldon, 1998), measuring the extent to which descriptions of one's actual, ideal, and ought self are similar or dissimilar from each other (Higgins, Roney, Crowe, & Hymes, 1994; Higgins & Tykocinski, 1992), or measuring response time for describing actual, ideal, or ought self (Higgins, Shah, Friedman, 1997) (although other studies such as Lockwood et al., 2005 have shown the moderating role of chronic approach-avoidance motivations using self-report measure). For this reason, it is recommended that future research include less explicit measures of chronic approach and avoidance motivation.

2.4.1. <u>Implications</u>

Cross-cultural investigations of factors and conditions that lead to an increased level of motivation are important not only for their merits in uncovering human psychology but also for their practical implications (e.g., increasing academic performance at school or productivity at workplace). For this reason, prior research that identified factors that have differential motivational significance across cultures has received much attention. For example, one factor known to affect motivation differently across cultures is whether a task one engages in is chosen by the self or by others. In a series of studies by Iyengar and Lepper (1999), European-American and Asian-American children worked on assignments that were either chosen by themselves or by their parents. On the one hand, European-American children performed better and liked the assignment better when it was chosen by themselves. In contrast, Asian-American children performed better and liked the tasks better when the tasks were chosen by in-group members (mother and classmates). Hence, whether individuals engage in a task chosen by themselves or by some important others has different motivational significance across cultures.

The current research adds to this line of research by identifying cultural differences in the effectiveness of promotion and prevention oriented task instructions. Desires to bring the self closer to desirable outcomes and to distance the self from undesirable outcomes represents two of human beings' most basic and fundamental psychological inclinations (Elliot, 1999). Yet, their motivational significance differs across cultures. In cultures where approach motivation is relatively more elaborated on, such as North America, a focus on promoting positive outcomes has relatively greater

motivational significance. In contrast, in cultures where avoidance motivation is relatively more elaborated on, such as Japan, a focus on preventing negative outcomes has relatively greater motivational significance. Future research on this topic should reveal to us a wide array of psychological processes implicated by this cultural difference.

References

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319-333.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*, 169-189.

Elliot, A. J., Chirkov, V. I., Kim, Y., & Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science, 12*, 505-510.

Elliot, A. J., & Sheldon, K. M. (1998). Avoidance personal goals and the personality-illness relationship. *Journal of Personality and Social Psychology, 75*, 1282-1299.

Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being. *Personality and Social Psychology Bulletin, 23*, 915.

Freitas, A. L., & Higgins, E. T. (2002). Enjoying goal-directed action: the role of regulatory fit. *Psychological Science, 13*, 1-6.

Hamamura, T., Heine, S. J., & Paulhus, D. L. (2008). Cultural differences in response styles: The role of dialectical thinking. *Personality and Individual Differences, 44*, 932-942.

Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology, 82*, 903-918.

Higgins, E. T. (2000). Making a good decision: value from fit. *American Psychologist, 55*, 1217-1230.

Higgins, E. T., Idson, L. C., Freitas, A. L., Spiegel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology, 84*, 1140-1153.

Higgins, E. T., Roney, C. J., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: distinct self-regulatory systems. *Journal of Personality and Social Psychology, 66*, 276-286.

Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology, 72*, 515-525.

Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality and Social Psychology Bulletin, 18*, 527.

Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology, 76*, 349-366.

Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122-1134.

Lockwood, P., Jordan, C., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology, 83*, 854-864.

Lockwood, P., Marshall, T. C., & Sadler, P. (2005). Promoting success or preventing

 failure: cultural differences in motivation by positive and negative role models.

 Personality and Social Psychology Bulletin, 31, 379.

Sakka: Nihon daihyo Zico kantoku "Shiki ha Warudo kappu made"　(Soccer: Zico will

 manage the national team until the World Cup). (2005, July 6, 07/06). *Mainichi*

 Shinbun,

Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means:

 How regulatory focus influences goal attainment. *Journal of Personality and*

 Social Psychology, 74, 285-293.

Sherman, D. K., Mann, T., & Updegraff, J. A. (2006). Approach/avoidance motivation,

 message framing, and health behavior: understanding the congruency effect.

 Motivation and Emotion, 30, 164-168.

Shweder, R. A. (1991). *Thinking Through Cultures: Expeditions in Cultural Psychology*:

 Harvard University Press.

Spiegel, S., Grant-Pillow, H., & Higgins, E. T. (2004). How regulatory fit enhances

 motivational strength during goal pursuit. *European Journal of Social Psychology,*

 34, 39-54.

Takagi, K. (2005). *Approach-avoidance goals and psychological well-being, health, and*

 interpersonal relationship outcomes across Euro-Canadian, Japanese, and

 Mexican cultures. Unpublished Master's thesis, University of British Columbia,

 Vancouver, BC.

Chapter 3: Approach-Avoidance Motivation and Information Processing: A Cross-Cultural Analysis[3]

Research in cultural psychology has advanced most fruitfully with its focus on culturally varying nature of the relations between the self and others (Markus & Kitayama, 1991) and cognitive processes (Nisbett, Peng, Choi, & Norenzayan, 2001). These two lines of research complement each other as social environments that people are embedded in profoundly influence their cognitive processes. For instance, Nisbett and colleagues have theorized the mutually reinforcing relationships between individualistic cultures and analytic cognitive processing of the Western societies and collectivistic cultures and holistic cognitive processing of East Asian societies. The current research focuses on the role of approach-avoidance motivations in fostering differences in cognitive processes across cultures.

Few psychological phenomena are more fundamental than approach and avoidance motivations, which have been implicated in a wide range of psychological processes (e.g., Cacioppo, Gardner, & Berntson, 1997; Elliot & Church, 1997; Higgins, 1997), and are observed across a diverse array of species (Elliot, 1999). Despite being basic elements of psychological processing, cultural variation in the frequency of these two motivations (e.g., Elliot, Chirkov, Kim, & Sheldon, 2001; Lee, Aaker, & Gardner, 2000) indicates that approach and avoidance motivations are not *accessibility universals,* or psychological processes that are accessible to the same extent across cultures (Norenzayan & Heine, 2005), but are shaped considerably by cultural experiences. There

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are many important implications that follow from the observed cross-cultural variation in this critical dimension.

3.1.   Evidence for Cross-Cultural Variation in Approach-Avoidance Motivations

A growing corpus of cross-cultural research confirms cultural differences in self-regulatory motivations. For example, Elliot et al. (2001) found that Asian-Americans and Koreans were more likely to embrace avoidance personal goals relative to European-Americans. Lee et al. (2000) found that Americans rated a tennis game that was framed as an opportunity to win as more important than one that was framed as an opportunity to avoid a loss, whereas the reverse pattern was observed among Chinese participants. Heine et al. (2001) found that whereas success feedback motivated Canadians more than failure feedback, Japanese participants were motivated more by failure feedback than success feedback (see also Oishi & Diener, 2003). Similarly, Lockwood, Marshall, and Sadler (2005) found that negative role models – someone that people want to ensure they do not become like – are more motivating for Asian-Canadians, whereas positive role models are more motivating for European-Canadians. The findings of these studies converge across methods to demonstrate that a concern with avoiding negatives is of greater significance among East Asians than Westerners.

At present, there is no consensus regarding why cultures differ in their approach-avoidance motivations, however, one account maintains that cultural differences in this dimension emerge because cultures differ in their conceptions of what it takes to be a good person: that is, high self-esteem is particularly desirable and functional in North America whereas "face" is particularly desirable and functional in

East Asia (e.g., Hamamura & Heine, 2007; Heine, 2005; see also Kitayama, Mesquita, & Karasawa, 2006; Kwan, Bond, & Singelis, 1997; Oishi & Diener, 2001). The rationale is that within individualistic cultures such as North America, individuals are enculturated (via socialization, participating in cultural institutions) to aspire to view themselves as a unique and self-sufficient entity. Toward this objective, individuals come to focus on positive self-characteristics to positively distinguish themselves from others – that is, they come to desire and acquire high self-esteem. Individuals have some degree of control over their self-esteem through a variety of self-deceptive strategies by which they can attend to and elaborate on self-relevant information in a way that is flattering to themselves, and thereby maintain a high level of self-esteem (for a review see Taylor & Brown, 1988). These tactics can be seen as examples of an approach motivation, as they facilitate progress towards the goal of securing positive information about the self. Hence, approach motivations can be seen as integral in Westerners' attempts to accumulate the self-resource that they tend to prioritize: namely, self-esteem.

In contrast, in hierarchical collectivistic cultural environments such as East Asia, where the self is embedded in a social network, being a culturally-valued person importantly entails maintaining one's "face," that is, "the respectability and/or deference which a person can claim for himself from others by virtue of the relative position he occupies in his social network and the degree to which he is judged to have functioned adequately in that position" (p. 883, Ho, 1976). Compared to self-esteem, face is considerably more difficult to manage. Increasing face is difficult as the amount of face that a person can claim is anchored to their position in the social hierarchy: face is increased when one moves up the social hierarchy (e.g., a graduate student becoming a

professor). On the other hand, face is chronically vulnerable for loss because it is successfully managed only to the extent that the individual is able to live up to the expectations of others - expectations that are often unknown to the individual. If one fails to meet other's expectations, they lose face, which can have significant consequences to the individual. Hence, face is something that is difficult to gain but potentially easy to lose. To the extent that East Asians tend to be more concerned about this inherently vulnerable resource, their self-regulation should be oriented more towards avoiding the loss of face (Hamamura & Heine, 2007; Heine, 2005).

In sum, one account has it that different conceptions of what it entails to be a good person across cultures, and an inherent asymmetry between the ease of acquiring self-esteem and the vulnerability of face, give rise to cultural variation in self-regulation: an approach-focus is more adaptive and should be more common among North Americans, whereas an avoidance-focus is more adaptive and should predominate among East Asians.

3.2. Cognitive Implications of Regulatory Fit.

Prior research shows that individuals are sensitized to stimuli that fit their chronic approach or avoidance motivation (for a review see Higgins & Spiegel, 2007). For example, Higgins and Tykocinski (1992) found that after reading a list of events that a stranger had experienced, approach-oriented individuals recalled more events pertaining to the presence or absence of positive outcomes, or *promotion* oriented events (e.g., finding a 20 dollar bill on the street, or finding that a movie one wanted to see was no longer showing) whereas avoidance-oriented individuals recalled more events pertaining to the presence or absence of negative outcomes, or *prevention* oriented events (e.g.,

finding a zit on one's nose, or having an unpleasant class canceled; see also (Derryberry & Reed, 1994; Higgins, Roney, Crowe, & Hymes, 1994; Strachman & Gable, 2006). Importantly, this line of research finds the cognitive implication of regulatory fit not only in processing of information that is self-relevant but also in processing of non-self-relevant information.

Combined with observed cultural variation in approach-avoidance motivations, research on cognitive implications of regulatory fit suggests a pattern such that North Americans with a more chronic approach motivation should be more attentive to information pertaining to positive rather than negative outcomes whereas East Asians with a more chronic avoidance motivation should show the opposite preference.

A few studies support this rationale. For example, a study of autobiographical memory found that whereas for Americans memories of successes were more accessible relative to memories of failures, among Japanese memories of successes and failures were equally accessible (Endo & Meijer, 2004). This study also found that Americans perceived the positive impact of their success memories to be greater than the negative impact of their failure memories whereas Japanese showed the opposite pattern. Similarly, a cross-cultural study of subjective well-being found that European-Americans' overall satisfaction ratings across a week were better predicted by the level of satisfaction that was reached in their happiest day of the week. In contrast, for Asian-Americans their overall satisfaction was better predicted by the level that was reached in their *un*happiest day of the week (Oishi, 2002). Likewise, when Hong Kong Chinese and European-Americans imagined themselves in a tennis match, Hong Kong Chinese had a better recall for the details when the game was framed as preventing a loss whereas

European-Americans exhibited a better recall when the game was framed as an opportunity to win (Aaker & Lee, 2001). Furthermore, in a cross-cultural replication of Higgins and Tykocinski (1992), Meijer, Heine, & Yamagami (1999) found that after studying a list of events that happened in a stranger's life, Japanese participants better recalled prevention oriented events, or those events framed in terms of the presence or absence of negative outcome, whereas Americans had better recall of promotion events, or those events framed in terms of the presence of absence of positive outcome. These studies converge in suggesting cultural differences in processing of self-relevant information: North Americans are attuned to promotion-oriented information whereas East Asians are attuned to prevention-oriented information.

What is not yet examined in the literature is whether this pattern of results extends to processing of non-self-relevant information. For example, are North Americans attuned to promotion-oriented information and East Asians attuned to prevention-oriented information when they are considering which movie to watch for the weekend? Such a pattern of finding would suggest that the cognitive implications of cultural differences in approach-avoidance motivations extend to the processing of a wide variety of information; even information that would appear to be unrelated to one's self-concept. To the extent that prior research shows that individuals' chronic approach and avoidance motivations serve to bias their information processing for non-self-relevant information (Higgins & Tykocinski, 1992), we predict that North Americans and East Asians should similarly differ in their processing of such information. Specifically, North Americans should be more attentive of information about positive characteristics whereas East

Asians should be more attentive of information about negative characteristics. Two studies were conducted to examine this hypothesis.

3.3. Overview of Studies 3 and 4

The hypothesis under investigation is that North Americans with a relatively chronic approach orientation should be more attentive to information pertaining to positive outcomes (promotion focus) relative to negative outcomes (prevention focus), whereas East Asians with a relatively chronic avoidance orientation should show the opposite preference. Study 3 examined this hypothesis by asking Japanese and North American participants to remember and recall a list of information. Study 4 examined customer book reviews posted on Amazon and investigated whether reviews that American customers found helpful contained more promotion-focused information and whether Japanese helpful reviews contained more prevention-focused information.

3.4. Study 3

3.4.1. Method

One hundred sixteen students at the University of British Columbia participated in the study. Of these, 55 were students who were born in Canada (42 females and 13 males, average age 20.44) and 61 were Japanese nationals who were studying in Canada (46 female and 15 male, average age 21.45). At the time of study, the Japanese students had been in Canada for an average of 6.4 months (ranging from 1 month to 24 months).

The two samples did not differ in their average age, $t\,(113) = 1.54$, $p > .10$. Also, the two samples did not differ in their gender proportions ($\chi^2 < 1$) and gender did not interact with any of the analyses reported below. Canadian participants received extra

credit towards their psychology grade and Japanese participants received $5 to compensate them for their participation.

A large number of reviews (posted by lay audiences) were retrieved from popular movie review websites in the US (http://www.imdb.com/) and Japan (http://movies.yahoo.co.jp/). The reviews were broken down into sentences, and the following procedure was carried out on these sentence-long reviews: first each review was classified into one of five categories (presence of positive quality, absence of positive quality, presence of negative quality, absence of negative quality, and neutral). Two graduate students of social psychology who were blind to the hypothesis carried out this classification. Reviews were retained only when the classifications by these two raters agreed. Also, in order to ensure that these reviews were meaningful in both cultures, a small group of Canadians and Japanese rated the reviews on their informativeness, and reviews that received low ratings in either culture were removed from the list.

The final list consisted of four sets of five movie reviews. The list mentioned four movies, and each movie was associated with a set of five-reviews (one review from each category). For example, a fictitious movie titled "The Wolf" was associated with the following five reviews: "It's just too fantastic. It's impossible to describe. You should just watch this without saying anything." (presence of positives), "The movie had no good actors or a good script" (absence of positives), "This is worthless. I could see where the jokes were going, and it made me want to leave in the middle" (presence of negatives), "This vastly underrated actor was not doing so badly in the movie" (absence of negatives), and "A movie disclaimer claims that the characters are, in part, fictional" (neutral). The study material and procedure were closely modeled after Meijer et al (1999). Finally,

participants completed a measure of chronic approach and avoidance motivation (Lockwood, Jordan, and Kunda, 2002).

The materials were translated between English and Japanese by a bilingual research assistant, and another bilingual checked the translation. The translators discussed and resolved any inconsistencies that were identified.

Participants read a list of reviews which were presented as sets of customer reviews of recently shown movies, and participants were asked to form an impression about each movie. After a distraction task (a sudoku puzzle), participants were unexpectedly asked to write down as much from the reviews that they could remember.

All of the English and Japanese recalls were coded by two coders: a native speaker of English or Japanese and a bilingual of the both languages. For each recall, a rating of 1 was given for a recall that preserved the original review category, and a rating of 0 was given for all the other recalls. For example, for the review "The movie had no good actors or a good script," a rating of 1 was given if the recall mentioned the fact that the movie had no good actors or script, and a rating of 0 was given for all other recalls. For recalls of neutral reviews, rating of 1 was given if the recall preserved meaning of the original sentence. High inter-coder reliability (Landis & Koch, 1977) was achieved: Kappa coefficients .75 and .88 for English and Japanese respectively. Discrepancies were resolved by discussion.

3.4.2. Results and Discussion

Of the five types of reviews, those that included the presence or absence of positive qualities represent promotion-reviews, and reviews that included the presence or absence of negative qualities represent prevention-reviews. The recall for neutral reviews

was entered as a covariate. Japanese and Canadian participants did not differ in their

recall of neutral reviews, $t < 1$ (Table 3.1).

Table 3.1. Recall of Movie Reviews (Study 3).

	Promotion reviews	Prevention reviews	Neutral reviews
Canadians	.41a	.28b	.16
	(.16)	(.14)	(.17)
Japanese	.37a	.34a	.18
	(.15)	(.14)	(.21)

Standard deviations are reported in parentheses.

Different subscripts within each row indicate significant difference between recalls for

promotion and prevention reviews at $p < .05$.

Recall of promotion and prevention-reviews were analyzed next. A repeated measure

ANCOVA with culture (Canada vs. Japan) as a factor controlling for recalls of neutral

reviews revealed a significant interaction, $F(1, 113) = 6.00$, $p < .05$, $\eta^2 = .05$. The main

effect of culture was not significant ($F < 1$), however, the review type had a significant

effect on recall in that promotion-reviews were recalled better ($M = .39$, $SD = .15$) than

prevention-reviews ($M = .31$, $SD = .15$), $t(115) = 3.86$, $p < .001$, $d = .53$. Nonetheless,

the strength of this effect was qualified by culture. Canadians recalled promotion-reviews

($M = .41$, $SD = .16$) significantly more than prevention-reviews ($M = .28$, $SD = .14$), t

(54) = 4.43, *p* < .001, *d* = .87. In contrast, among Japanese this difference was considerably smaller (promotion-reviews: *M* = .37, *SD* = .15, prevention-reviews: *M* = .34, *SD* = .14), *t* (60) = 1.17, *ns*, *d* = .21. Hence, Canadians showed better recall of promotion-reviews compared to prevention-reviews whereas the same effect was considerably weaker among Japanese.

Analyses were also conducted to examine whether cultural differences in recall of promotion and prevention reviews were qualified by the valence of reviews. Reviews that include the presence of positive and absence of negative qualities represent positive valence reviews whereas those that include the presence of negative and absence of positive qualities represent negative valence reviews. The 3-way interaction between valence (positive or negative), framing (promotion or prevention), and culture (Canada or Japan) was not significant, *F* < 1, *ns*. The 2-way interaction between valence and culture was also non-significant, *F* < 1, *ns*. Hence, cultural differences in recalls of promotion and prevention reviews were unqualified by the valence of the reviews.

The measure of chronic approach and avoidance motivations showed that Canadians were significantly more approach oriented (M = 4.08, SD = .52) compared to Japanese (M = 3.60, SD = .59), *F* (1, 115) = 21.25, *p* < .001 whereas the two groups did not differ on chronic avoidance motivation, *F* < 1. Chronic approach motivation was a marginally significant negative predictor of memories of prevention oriented contents, *r* (117) = -.16, *p* = .08. No other correlations were significant (rs < .10). Finally, entering chronic approach and avoidance motivations in the repeated measure ANCOVA did not weaken the interaction between culture and type of information at all, *F* (1, 112) = 5.87, *p*

< .05. Hence, although Canadians and Japanese differed on chronic approach motivation, this difference did not explain the pattern of information recall observed across cultures.

In sum, Study 3 found an interaction between culture and the framing of information on recall. These findings support the hypothesis that differences in chronic motivation orientation give rise to cultural difference in the type of information to which people most closely attend.

One implication of these findings is that cultures might also differ in the processes of decision making. For instance, to the extent that North Americans are particularly attentive to promotion-information, they might find information that focuses on positive characteristics to be more helpful in guiding their decision making (e.g., purchasing a product). In contrast, to the extent that Japanese are especially aware of prevention-information, they might find information that focuses on negative characteristics to be more helpful when making decisions. Study 4 examined this possibility by analyzing consumer book reviews that were rated as helpful in the US and Japan. To the extent that Japanese and Americans differ in the perceived quality of helpful information, helpful book reviews in the US should contain a greater amount of promotion-oriented content relative to prevention-oriented content whereas this trend should be considerably weaker, if not reversed, among helpful book reviews in Japan.

3.5. Study 4

3.5.1. Method

Amazon (US: www.amazon.com and Japan: www.amazon.co.jp) is one of the most popular on-line bookstores in both the US and Japan. One of the many interactive features available on Amazon revolves around customer book reviews: customers are

able to post their reviews of a book and, in turn, these reviews are rated in terms of their usefulness by potential buyers. As reviews are more prevalent for top-selling books, we examined reviews for the 10 top selling books in 2005 on both Amazon.com and Amazon.co.jp (the top 5 fiction sellers and the top 5 non-fiction sellers). All reviews that were posted for a given book were sorted by their helpfulness rating, and the 8 most helpful reviews were obtained for each book. Eighty American book reviews and 80 Japanese reviews were obtained by this procedure.

Each book review was rated for the amount of promotion- and prevention-content that it contained. Two bilinguals independently coded each review for the amount of contents mentioning the presence of positive characteristics, the absence of positive characteristics, the presence of negative characteristics, and the absence of negative characteristics. Contents that did not meet any of these categories were not coded. Hence, each review received four ratings, one for each of the four content types.

In rating the amount of particular content type, a three-point scoring system was used. The highest score (2) was given when a review contained 2 or more sentences of a particular content type, a score of (1) was given when a review contained just 1 sentence of a particular content type, and the lowest score (0) was given when a review did not contain a particular content type. High inter-coder reliability (Landis & Koch, 1977) was achieved: Kappa coefficients of .72 and .71 for English and Japanese, respectively. Discrepancies were resolved by discussion.

3.5.2. <u>Results and Discussion</u>

Helpful American reviews were rated by a greater number of people ($M = 349$, $SD = 631$) than helpful Japanese reviews ($M = 57$, $SD = 39$), $t(158) = 4.13$, $p < .001$.

Nevertheless, the proportion of people who found reviews helpful did not differ between the US (73%) and Japan (70%), t (158) = 1.22, ns. Hence, the perceived helpfulness of the obtained reviews did not differ across cultures.

Obtained reviews were also compared in terms of their length (the number of words in English and the number of characters in Japanese). Although the length of reviews did not differ between American (M = 417, SD = 355) and Japanese reviews (M = 366, SD = 200), t (158) = 1.11, ns, this comparison is not very meaningful as one word in English may or may not communicate more than one character in Japanese. To guard against the possibility of the review length affecting the results, review length was included as a covariate (excluding this variable does not change the results reported below). The book's genre (fiction or non-fiction) did not influence any of the results reported below, hence it is mentioned no further.

Of the four types of content mentioned above, those that mention the presence or absence of positive characteristic represent promotion-contents, whereas those that mention the presence or absence of negative characteristic represent prevention-contents.

A repeated measure ANCOVA on the review contents (promotion or prevention) with culture (US vs. Japan) as a factor controlling for review length revealed a significant interaction, F (1, 157) = 5.53, p < .05, η^2 = .03 (Table 3.2).

Table 3.2. Contents of Helpful Book Reviews (Study 4).

	Promotion contents	Prevention contents
Americans	1.11a	.76b
	(.58)	(.61)
Japanese	.91a	.81a
	(.50)	(.42)

Standard deviations are reported in parentheses.

Different subscripts within each row indicate significant difference between the

prevalence of promotion and prevention contents at $p < .05$.

The main effect of culture was not significant, $F < 1$, whereas the main effect of

content type (promotion or prevention) was significant, $t(159) = 4.28$, $p < .001$, $d = .43$:

promotion-contents ($M = 1.01$, $SD = .55$) were more prevalent in the reviews compared to

prevention-contents ($M = .78$, $SD = .52$). This effect, however, was qualified by culture.

Among American reviews, promotion-contents were significantly more prevalent ($M = $

1.11, $SD = .58$) compared to prevention-contents ($M = .76$, $SD = .61$), $t(79) = 4.56$, p

$< .001$, $d = .59$. However, in Japanese reviews the difference between the amount of

promotion- ($M = .91$, $SD = .50$) and prevention-contents ($M = .81$, $SD = .42$) was not

significant, $t(79) = 1.47$, ns, $d = .22$. Hence, while helpful reviews in the US contained a

greater amount of promotion-contents relative to prevention-contents, Japanese helpful

reviews contained about equal amounts of promotion- and prevention-contents.

Next, analyses were conducted to examine whether cultural differences in the

prevalence of promotion and prevention contents were qualified by the valence of the review contents. First of all, there was a significant 2-way interaction between valence and culture, $F(1, 157) = 8.78$, $p < .01$, $\eta^2 = .05$. Among American reviews, the prevalence of positive ($M = .93$, $SD = .63$) and negative valence contents ($M = .94$, $SD = .85$) did not differ significantly, $t < 1$, ns, $d = -.01$. In contrast, among Japanese reviews negative valence contents ($M = 1.13$, $SD = .77$) were significantly more prevalent compared to positive valence contents ($M = .59$, $SD = .57$), $t(79) = 4.02$, $p < .001$, $d = -.81$. Hence, the prevalence of positive and negative valence reviews differed between American and Japanese helpful reviews. Nevertheless, the 3 way interaction between valence (positive or negative), framing (promotion or prevention), and culture (US or Japan) was not significant, $F < 1$, ns. Thus, cultural differences in the prevalence of promotion and prevention contents was not qualified by the contents' valence.

One alternative possibility for the above finding is that American and Japanese reviews differ in the base rates of promotion and prevention contents. That is, it might be that American reviews, regardless of their perceived helpfulness, contained greater amount of promotion contents whereas Japanese reviews contained greater amount of prevention contents regardless of their perceived helpfulness. To rule out this possibility, analyses were conducted to examine the relations between the nature of the contents and the helpfulness of the review (i.e., the percent of customers who rated each review as helpful). Among American reviews, helpfulness was significantly negatively correlated with the amount of prevention contents, $r(80) = -.40$, $p < .001$, whereas helpfulness was uncorrelated with the amount of promotion contents, $r(80) = .05$, ns. That is, among American reviews, the amount of prevention contents was a negative predictor of their

helpfulness. However, the same relation was absent among Japanese reviews: helpfulness was uncorrelated with the amount of prevention contents, $r(80) = .01$, *ns*. The amount of promotion contents was also unrelated to helpfulness, $r(80) = -.10$, *ns*. These findings provide further support to the notion that the cultures differ on the perceived utility of promotion or prevention information: among American reviews, the amount of prevention contents negatively predicted the helpfulness of the review whereas such a relation was not found among Japanese reviews.

3.6. General Discussion

Two studies found evidence for cultural differences in promotion and prevention information processing. Study 3 found an interaction between culture and information framing on memory recall. North Americans showed better recall for promotion-focused information relative to prevention-focused information, whereas this effect was considerably weaker among Japanese who remembered prevention-focused information as well as promotion-focused information. In Study 4, we observed a difference in the kind of information that Americans and Japanese found helpful when evaluating book reviews. Customer book reviews that were rated as helpful in the US contained a greater amount of promotion-content relative to prevention-content, whereas helpful reviews in Japan contained about equal amounts of promotion- and prevention-oriented content. Moreover, prevention content was viewed as especially unhelpful for book reviews among Americans but not among Japanese. These findings confirm that cultural differences in chronic approach or avoidance motivations give rise to cultural differences in the kinds of information individuals attend to in their

environment. Furthermore, this cultural difference extends beyond the laboratory to the cultural environment (as reproduced through Amazon).

The current research also found that the effect of information framing is independent of the effect of information valence. North Americans' attentiveness to promotion information and Japanese's attentiveness to prevention information was unqualified by the valence of information. What the promotion-prevention distinction predicts is attentiveness to the framing, focusing on the *presence or absence* of positive or negative information, and this distinction does not directly pertain to the valence of the information.

3.6.1. <u>Limitations</u>

Although in both studies we found an interaction between culture and information framing, the interaction observed was not a cross-over interaction. This pattern of results diverges from prior research. For example, in cross-cultural replication of Higgins and Tykocinski (1992), Meijer et al. (1999) found a cross-over interaction between culture and information framing in that whereas American participants recalled promotion information more so than prevention information, Japanese participants recalled prevention information more so than promotion information. Unlike Meijer et al (1999), in Studies 3 and 4 Japanese' preference of promotion and prevention oriented information did not differ significantly. We speculate that this inconsistency might have stemmed from our use of movie reviews and book reviews as stimuli in Studies 3 and 4. We speculate that when people are reading reviews about movies and books, they are more likely to be in a promotion-oriented state as their main concerns are presumably to have a pleasant experience by selecting a good movie or book (rather than trying to avoid

an unpleasant experience). In other words, the use of movie reviews and book reviews as stimulus in Study 3 and 4 might have skewed the findings toward greater promotion focus both for North Americans and Japanese.

Some evidence in support of this speculation comes from comparisons of Meijer et al. (1999) and Study 3, two memory recall studies with nearly identical procedures with the exception of the stimulus: participants in Meijer et al. (1999) recalled some events occurred to a stranger's life, the kind of information that does not clearly favor promotion or prevention focus. A comparison of the effect sizes from these two studies is informative. In Meijer et al. (1999), Americans favored promotion information more so than prevention information ($d = .44$) whereas Japanese showed the opposite pattern, favoring prevention information over promotion information ($d = -.24$). In contrast, in Study 3 promotion information was recalled more so than prevention information both by Canadians ($d = .87$) and Japanese ($d = .21$) although this effect was significant only among Canadians. What we note here is in comparison to Meijer et al. (1999), recall of promotion information in Study 3 was greater to a similar degree both for Canadians and Japanese. Hence, in Study 3 promotion information was generally recalled better for both cultures relative to Meijer et al (1999), supporting the speculation that the use of movie reviews as a stimulus favored a promotion focus. Thus, the use of movie and book reviews in Study 3 and 4 might have skewed the results toward a greater promotion focus. This possibility, however, needs to be examined systematically in future research.

Another limitation is the measure of chronic motivations in Study 3. This measure found that Canadians were more approach focused than Japanese (the two

samples did not differ on avoidance), but chronic motivations were generally

uncorrelated with information recall, and they did not account for the interaction between

culture and framing of information on memories. Similar to the findings from Studies 1-2,

this finding suggests the possibility that approach-avoidance motivations that are

accessible to individuals as beliefs and values do not necessarily overlap with their

behavioral inclinations, information recall in the case of Study 3. It is recommended that

future research measure chronic approach and avoidance motivations using less explicit

measure (e.g., coding personal goals, measuring the discrepancies between descriptions

of actual, ideal, and ought self).

3.6.2. Conclusion

      Approach- and avoidance-motivations are fundamental and universal

motivations that exist across species, but they are relied upon to varying extents in

different cultures. As approach-avoidance motivations are associated with different

patterns of information processing, North Americans and Japanese also differ in the kinds

of information to which they most closely attend. Japanese are, on average, more

sensitive to information that indicates the presence or absence of negatives, whereas

Americans are, on average, more sensitive to information that indicates presence or

absence of positives. The current research highlights the utility of the approach-avoidance

distinction in cross-cultural research of self and cognition.

References

Aaker, J. L., & Lee, A. Y. (2001). " I" seek pleasures and" we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research, 28*, 33-49.

Cacioppo, J. T., Gardner, W. L., & Berntson, G. G. (1997). Beyond bipolar conceptualizations and measures: The case of attitudes and evaluative space. *Personality and Social Psychology Review, 1*, 3.

Derryberry, D., & Reed, M. A. (1994). Temperament and attention: orienting toward and away from positive and negative signals. *Journal of Personality and Social Psychology, 66*, 1128-1139.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*, 169-189.

Elliot, A. J., Chirkov, V. I., Kim, Y., & Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science, 12*, 505-510.

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 72*, 218-232.

Endo, Y., & Meijer, Z. (2004). Autobiographical memory of success and failure experiences. *Progress in Asian Social Psychology, 4*, 67-84.

Hamamura, T., & Heine, S. J. (2007). Self-enhancement, self-improvement, and face among Japanese. In E. C. Chang (Ed.), *Self-Criticism and Self-Enhancement:*

Theory, Research, and Clinical Implications (pp. 105-122). Washington, DC: American Psychological Association.

Heine, S. J. (2005). Constructing good selves in Japan and North America. In R. M. Sorrentino, D. Cohen, J. M. Olson & M. P. Zanna (Eds.), *Culture and Social Behavior: The Tenth Ontario Symposium* (pp. 115-143). Hillsdale, NJ: Lawrence Erlbaum.

Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., et al. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology, 81*, 599–615.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280-1300.

Higgins, E. T., Roney, C. J., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: distinct self-regulatory systems. *Journal of Personality and Social Psychology, 66*, 276-286.

Higgins, E. T., & Spiegel, S. (2007). Promotion and prevention strategies for self-regulation. *Handbook of Self-Regulation: Research, Theory, and Applications*.

Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality and Social Psychology Bulletin, 18*, 527.

Ho, D. Y. F. (1976). Concept of face. *American Journal of Sociology, 81*, 867-884.

Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology, 91*, 890-903.

Kwan, V. S., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038-1051.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174.

Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122-1134.

Lockwood, P., Jordan, C., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology, 83*, 854-864.

Lockwood, P., Marshall, T. C., & Sadler, P. (2005). Promoting success or preventing failure: cultural differences in motivation by positive and negative role models. *Personality and Social Psychology Bulletin, 31*, 379.

Markus, H. R., & Kitayama, S. (1991). Culture and the self - implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

Meijer, Z., Heine, S. J., & Yamagami, M. (1999). *Remember those good ol' days? Culture, self-discrepancies and biographical memory*. Paper presented at the 3rd conference of the Asian Association of Social Psychology.

Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: holistic versus analytic cognition. *Psychological Review, 108*, 291-310.

Norenzayan, A., & Heine, S. J. (2005). Psychological universals: What are they and how can we know? *Psychological Bulletin, 131*, 763-784.

Oishi, S. (2002). The experiencing and remembering of well-being: A cross-cultural analysis. *Personality and Social Psychology Bulletin, 28*, 1398.

Oishi, S., & Diener, E. (2001). Goals, culture, and subjective well-being. *Personality and Social Psychology Bulletin, 27*, 1674.

Oishi, S., & Diener, E. (2003). Culture and well-being: The cycle of action, evaluation, and decision. *Personality and Social Psychology Bulletin, 29*, 939.

Strachman, A., & Gable, S. L. (2006). What you want (and do not want) affects what you see (and do not see): Avoidance social goals and social events. *Personality and Social Psychology Bulletin, 32*, 1446.

Chapter 4: Conclusion

An accumulating body of evidence illustrates the ways in which the universal psychological processes of approach and avoidance motivations are elaborated differently across cultures. Two sets of studies in this dissertation explored some of the implications of this cultural difference in approach-avoidance motivation.

4.1. Summary of the Findings: Studies 1 and 2

The first set of studies investigated the consequences of a fit between culturally encouraged motivation and the motivational focus that a task at hand demands. The hypothesis under investigation was that a fit between culturally encouraged motivation and the focus of self-regulation required for a task at hand would result in an increased motivation. Two studies examined this hypothesis. In Study 1, we had Canadian and Japanese participants perform a task of finding a character from passages written in a foreign language and measured their performance and persistence on this task. We found an interaction between culture and condition on task persistence in that participants persisted longer on the task when the motivation style that is encouraged in their cultures (i.e., approach motivation for Canadian participants and avoidance motivation for Japanese participants) matched with the focus of the task instruction (e.g., reward for good performance or punishment for poor performance). However, this effect was not observed in the analysis of task performance, suggesting the possibility that participants actually became less efficient at the task when they experienced a match between culturally encouraged motivation style and the temporally induced focus of self-regulation. To rule out this possibility, in Study 2 we set a time limit on the task. Findings from Study 2 replicated the interaction between culture and condition from

Study 1 in that participants were able to solve problems more accurately when the focus of the task instruction matched with their culturally encouraged motivation. Thus, these studies provided the evidence that one's motivation for a task is enhanced when the focus of self-regulation for a task at hand matches with the motivation that is encouraged in their culture.

This is the first cross-cultural research reporting the consequences of a fit between culturally encouraged motivation and temporally induced focus of self-regulation. Prior research in this area investigated the fit by examining the consequences of chronic approach and avoidance motivation in different cultural contexts. This line of research has suggested that a fit between people's chronic motivation and culturally encouraged motivation is generally associated with positive mental and physical health outcomes whereas a mismatch is associated with negative outcomes (Elliot, Chirkov, Kim, & Sheldon, 2001; Heine & Lehman, 1999; Takagi, 2005). Complementing this research, the fit investigated in the current research is between situationally induced focus of self-regulation and culturally encouraged motivation, and we found positive motivational consequences of such a fit. That is, the motivation of Canadians was higher with the promotion relative to prevention task instruction whereas motivation of Japanese was higher with the prevention relative to promotion task instruction. In this manner, this research extends cross-cultural research on regulatory fit.

Study 1 and 2 are compromised by a few limitations. Most significantly, although the interaction between culture and condition was found as predicted in both studies, the source of the interaction differed between the two studies. In Study 1, we found a higher level of motivation among Japanese participants under the prevention

instruction than promotion instruction although the opposite pattern was not found among Canadian participants. In contrast, in Study 2, we found higher motivation among Canadian participants under the promotion instruction relative to the prevention instruction, but the opposite pattern was not observed among Japanese participants. We speculated that this inconsistency in results might reflect a task dependent nature of promotion and prevention instructions. To examine this possibility, it is recommended that in future research, the effectiveness of task instructions should be validated.

4.2. Summary of the Findings: Studies 3 and 4

The second set of studies investigated some cognitive implications of the cultural difference in approach-avoidance. The hypothesis investigated in these studies was that people are particularly attentive of information that is congruent with their chronic motivation. Specifically, we predicted that North Americans, due to their predominately approach focus, are more attentive to information framed in positive terms (i.e., presence or absence of positives). In contrast, we predicted that Japanese, due to their predominately avoidance focus, are more attentive to information framed in negative terms (i.e., presence or absence of negatives). We examined this hypothesis with the processing of non-self-relevant information.

In Study 3, we asked Canadian and Japanese participants to read and remember a list of movie reviews, which was designed to contain a mix of promotion and prevention focused contents. This study found an interaction between culture and type of information. Canadian participants recalled promotion focused movie reviews better than prevention focused movie reviews. No such difference was found among Japanese participants. In sum, this study provided evidence for the hypothesis that people are

attentive to the type of information that is congruent with their chronic approach or avoidance motivation. In addition, this study extends the prior research in this area in showing that cultural differences in approach and avoidance motivation implicate differences in the processing of information that is relatively non-essential for one's self-concept.

To the extent that people differ in their attentiveness to promotion and prevention oriented information as a function of their cultural backgrounds, North Americans and Japanese might also differ in the kind of information that they perceive to be helpful for guiding their decision making. In order to investigate this possibility, in Study 4 we compared customer book reviews posted on Amazon USA and Japan. We sampled book reviews that were rated to be highly helpful by American and Japanese customers and content coded them for the prevalence of promotion and prevention oriented contents. In this study, we found an interaction between culture and type of information. Among helpful reviews in the US, promotion oriented contents were significantly more prevalent compared to prevention oriented contents whereas no such difference was found among Japanese helpful reviews. In addition, we found a significant negative correlation between the amount of prevention contents and perceived helpfulness of reviews in the US, suggesting that American customers found prevention contents to be particularly unhelpful in guiding their decision. In contrast, among helpful reviews in Japan, no such correlation was found. In sum, this study found that kind of information that Americans and Japanese perceive to be helpful differed as a function of their chronic approach and avoidance motivation.

One limitation of Study 3 and 4 is the absence of a cross-over interaction in that the significant interaction between culture and type of information in both studies was driven by the significant simple main effect among North Americans: although North Americans preferred promotion oriented information significantly more than prevention oriented information, the opposite pattern was not found among Japanese. We speculated that this might be due to our usage of movie and book reviews as stimuli in these studies, as people are presumably focusing on having a pleasant experience (rather than avoiding an unpleasant experience) with movies and books. A comparisons of findings from Study 3 and Meijer, Heine, & Yamagami, 1999, which uses the nearly identical study procedure with the exception of the stimuli, supports this consideration. Hence, the absence of the simple main effect among Japanese in Studies 3 and 4 is likely be due to the nature of the stimuli employed in these studies. Nonetheless, this possibility should be examined systematically in future research.

4.3. Meta-Analysis of Studies 1-4

Studies 1-4 all found an interaction between culture and approach-avoidance in that in all studies North Americans were relatively more approach oriented than Japanese who were relatively more avoidance focused. Nevertheless, the pattern of this interaction was not always consistent: the interaction was driven by a simple main effect among Japanese participants in Study 1, but a simple main effect among North Americans in Studies 2-4. Moreover, in Studies 3-4 both North Americans and Japanese preferred promotion oriented information more than prevention oriented information. For each specific pattern, I speculated why such a pattern of results might have resulted. As these

issues potentially limit the generalizebility of the findings, it is important that future

research examine these issues.

Despite this limitation, it is noteworthy that the interaction between culture and

approach-avoidance motivation was found consistently in all 4 studies. To summarize the

findings from these studies and also to identify the extent to which various limitations

affected the results, I summarized the effect sizes from Studies 1-4 and subjected them to

a meta-analysis (Table 4.1).

Table 4.1. Meta-Analysis of Studies 1-4

	North Americans	Japanese	Cultural Difference
	d	d	d
Study 1: persistence	.14	-.35	.52
Study 1: performance	-.08	-.30	.24
Study 2	.55	-.07	.67
Study 3	.87	.21	.67
Study 4	.59	.22	.47
Weighted average effect size	**.46***	**-.003**	**.50***

* Weighted average effect sizes differed significantly from 0 at $p < .05$

Note: To obtain effect sizes within cultures, difference of means between the promotion and prevention condition (Studies 1-2) or information (Studies 3-4) was obtained and standardized by its standard deviation. Hence, the effect sizes indicate the extent to which approach motivation was stronger than avoidance motivation in that culture. To obtain effect sizes between cultures, I first obtained difference of means between the promotion and prevention condition/information within each culture. Then, I took the difference between these two numbers. To standardize this number, standard deviation from each culture was pooled together. Hence, the effect sizes indicate the extent to which approach motivation (relative to avoidance) was stronger among North Americans compared to Japanese.

Four studies summarized in this meta-analysis differed not only in their methods but also in aspects of approach and avoidance motivation investigated, but these studies share one commonality in that all the studies investigated the relative strength of approach and avoidance motivation among North Americans and Japanese. Consequently, this meta-analysis illustrates what Studies 1-4 found at this level of analysis.

First of all, when Studies 1-4 was considered as a whole, North Americans were significantly more approach focused than avoidance focused as seen in a positive weighted average effect size, $d = .46, Z = 3.26, p < .01$. This effect size is larger than what is considered as a small effect size ($d = .20$) but slightly smaller than what is considered as a medium effect size ($d = .50$) (Cohen, 1988). In sum, Studies 1-4 as a whole found that among North Americans approach motivation was relatively stronger than avoidance motivation. This replicates prior research (Elliot et al., 2001; Lee, Aaker, & Gardner, 2000; Lockwood, Marshall, & Sadler, 2005).

In contrast, the weighted average effect size among Japanese was $d = -.003$ which was not significantly different from 0, $Z < 1$, *ns*. That is, when Studies 1-4 was considered as a whole, there was no difference among Japanese in the relative strength of avoidance and approach motivation. However, it is important to keep in mind that Study 3 and 4 probably skewed both North Americans and Japanese toward the direction of greater approach focus because of our usage of movie and book reviews as stimulus. In fact, the weighted average effect size for Japanese in Studies 3-4 was significantly positive, $d = .22, Z = 2.57, p = .01$, whereas the average of the three effect sizes from Studies 1-2 was negative, $d = -.23, Z = -1.64, p = .10$, indicating relatively stronger avoidance motivation than approach motivation among Japanese. And these two effect

sizes were significantly different from each other, $Q = 7.46$, $p < .01$. Hence, although the weighted average effect size did not indicate avoidance motivation to be relatively stronger over approach motivation among Japanese, this estimate is confounded by Studies 3-4 which skewed the results toward greater approach focus.

Cross-culturally, the weighted average effect size was $d = .50$, $Z = 6.50$, $p < .001$. This indicates that Studies 1-4 as a whole found relatively greater approach focus among North Americans compared to Japanese. Approach and avoidance motivations are considered as universal human motivations as inclinations to approach desirable outcomes and avoid undesirable outcomes are both necessary for survival (Elliot, 1999; Higgins, 1997). Nevertheless, findings from Studies 1-4 indicate that cultures elaborate on these two motivations differently. In North American cultures, approach motivation is relatively more predominant than avoidance motivation whereas this tendency is considerably weaker, if not reversed, in Japanese culture.

In sum, the meta-analysis of Studies 1-4 indicates that the magnitude of the North America-Japan difference in approach and avoidance motivation is modest in effect size and robust. We theorized that cultural differences in approach and avoidance motivations stem from different conceptions of what it entails to be a "good person" across cultures. On the one hand, in North American cultures the conception of good person importantly hinges on the possession of high self-esteem, and approach motivation is one of the psychological processes employed toward the goal of high self-esteem. On the other hand, in Japanese culture the conception of good person is anchored on the successful maintenance of face, and avoidance motivation is one of the psychological processes individuals adopt toward the goal of face maintenance. It is this

theorizing that predicted cultural differences in approach and avoidance motivation. Studies reported in this dissertation render support to this theorizing.

In conclusion, research reported in this dissertation shows that cultures differ on approach-avoidance motivations. The weighted average effect size of this cultural difference across 4 studies was $d = .50$, which is not large in magnitude but was found consistently across 4 studies that used different methods. Moreover, studies in this dissertation examined some of the implications of approach-avoidance motivation cultural differences. Approach-avoidance distinction is a very well researched topic of study, and my studies have shown how the cross-cultural application of this work is fruitful in advancing the understanding of the ways in which psychological processes are shaped differently across cultures.

4.4.   On the Origin of Cultural Differences in Approach-Avoidance Motivations

In the introduction of this dissertation, I discussed how concerns for self-esteem in North American and face in East Asian cultures foster approach and avoidance motivations differently. This account, however, is largely silent with regards to how these two distinct patterns of psychological processes might have emerged in the first place. This section speculates on this question. In order to keep the scope of the speculation manageable, the discussion focuses on the origin of cultural differences in individualistic- and collectivistic-psychological processes. Prior research suggests interrelated nature of individualistic psychological processes (independence), self-esteem, and approach focus on the one hand, and collectivistic psychological processes (interdependence), relationship concerns, and avoidance focus on the other hand (Heine & Renshaw, 2002; Kwan, Bond, & Singelis, 1997; Lee, Aaker, & Gardner, 2000). For this reason, focus on

individualism-collectivism (IND-COL) should be informative in considering how cultures might have come to differ on the concerns for self-esteem and face as well as approach and avoidance motivations.

The dimension of individualism-collectivism (IND-COL) is one of the most frequently used cultural dimensions in cross-cultural research. There are a few theories as to how cultures came to differ on IND-COL. One such theory states that the IND-COL cultural differences are reflecting of economic development. Support for this theory is a substantial correlation between societies' level of economic development and their individualism that has been reported repeatedly in the literature (Hofstede, 1984; Inglehart & Baker, 2000). However, despite this evidence and intuitive appeal of the theory, the conjecture that economic development causes individualism is faced with a number of challenges. The most significant challenge is the "East Asian paradox," or the observation that highly developed societies in East Asia appear much less individualistic compared to similarly developed societies in the West (Huntington, 1998). Research in cultural psychology supports this observation. For example, studies that compare American and Japanese university students have repeatedly found that individualistic psychological processes are much more prevalent among Americans compared to Japanese (e.g., Cousins, 1989; Markus & Kitayama, 1991). To the extent that the US and Japan represent two of the most highly developed societies in the world today, the pervasive IND-COL differences found between these two cultures suggest that there are more than just economic development to the cross-cultural variations in IND-COL.

Some research has also identified the role of ecological conditions in causing cultural variations in IND-COL. One such factor is the level of food accumulation. Barry

Iii, Child, and Bacon (1959) suggested that in small scale societies the amount and frequency of food accumulation within a community are causally related to individualistic and collectivistic psychological processes. In this framework, an agriculture-based community represents one end of the continuum, a high food accumulation community. In a high food accumulation community, food is harvested in large quantity only infrequently, and the production and management of food are managed very carefully to ensure the steady level of food supply. Adherences to social norms and conformity are encouraged, and risk taking is discouraged as the potential benefit from a successful innovation (e.g., a new method of harvesting) is outweighed by the danger of food shortage in the case of an unsuccessful innovation. For these reasons, according to Barry et al. collectivism flourishes in a high food accumulation community.

The other end of the spectrum in this model is the low food accumulation community, exemplified by a hunting based community. In such a community, smaller amount of food is obtained and consumed frequently. With this form of subsistence, risk taking is valuable as benefits of a successful innovation can outweigh the cost of failures. This is so because the consequences of an unsuccessful innovation could be alleviated in a relatively short amount of time, without necessarily triggering the serious risk of food shortage. Hence, individual initiative for innovation is highly valued, and individualism flourishes in such a community according to Barrry et al.

Barry et al (1959) tested the predicted relation between the level of food accumulation and IND-COL, measured by emphasis in child-rearing practices, in a survey of Human Relations Area File. Supporting the prediction, it was found that in high food accumulation communities, children are socialized to respect authority and adhere to

social norms whereas in low food accumulation communities, children are socialized to be self-reliant and achievement oriented. Additional evidence for this theory was reported in Berry (1967). Using Asch conformity task, Berry (1967) found that individuals from high food accumulating communities (the Temne in Siera Leone, subsisting on rice harvesting) showed significantly higher level of conformity compared to those from low food accumulating communities (the Eskimos, subsisting on hunting and fishing). Hence, these studies suggest that the level of food accumulation is one ecological factor that gave rise to cross-cultural differences in IND-COL.

More recently, another ecological variable has been suggested to cause cross-cultural differences in IND-COL. This variable is the prevalence of disease-causing pathogens in environment (Fincher, Thornhill, Murray, & Schaller, in press). According to this theory, collectivism is found in regions where disease-causing pathogens are prevalent because collectivistic psychological processes work as defense mechanisms against the pathogens. Collectivistic psychological processes such as the reluctance to interact with members of out-group serve to protect individuals from potential exposures to novel pathogens. Similarly, norm of conformity, to the extent that it helps preserve the integrity of rituals and customs that frequently function as a buffer against the risk of disease, is an effective defense mechanism against the pathogens. Supporting this rationale, Fincher et al. found that the prevalence of pathogens was positively correlated with collectivism, and this relation remained significant even after controlling for differences in economic development. Hence, this research suggests that the prevalence of disease causing pathogen is another ecological factor that caused cross-cultural differences in IND-COL.

In sum, society's level of food accumulation and the prevalence of disease causing pathogen are two ecological factors that have been identified in relations to cross-cultural variations in IND-COL. However, in considering why societies in North America and East Asia differ on IND-COL today, these ecological explanations are inadequate because people in these societies today are largely unconcerned about food shortage, and the threat of disease-causing pathogens are largely under control with public health system in these societies. North American and East Asia might have had differed in these conditions in ancestral environments (e.g., for discussion on different forms of subsistence economy practiced in ancient China and Greece, see Nisbett, 2003). But it is not self-evident why two highly developed societies that do not differ on these ecological factors differ on IND-COL today.

What is missing from the ecological explanations of IND-COL cultural differences is the analysis of cultural transmission. With mechanisms of cultural transmission, a pattern of culture evoked by ecological conditions such as the level of food accumulation and the prevalence of pathogens can persist even without those original conditions. One example of the persistence of culture without the presence of original ecology that evoked such a culture is culture of honor in the Southern US today (Nisbett and Cohen, 1996). Culture of honor in the Southern US today no longer functions as a mechanism for protecting one's livestock (unlike the time period when herding economy was prevalent in the region), instead culture of honor today is largely based on people's shared expectations. Hence, a Southern man today would retaliate to an insult not to defer thieves targeting his herds but to avoid others' perception that he is not manly (Cohen, Vandello, Puente, & Rantilla, 1999). Interestingly, such a perception

may or may not be real. That is, one's perception that non-retaliation would result in the damaged reputation may not be shared by others, and this gap in one's perception of others and what others actually think, or the state of pluralistic ignorance (Prentice & Miller, 1993) may be at least partially responsible for the persistence and prevalence of culture of honor in the US South today (Nisbett & Cohen, 1996). This example underscores the essential role of shared beliefs and expectations in the persistence of culture (for extended discussion of this topic, see Cohen, 2001).

This IND-COL difference between contemporary North American and East Asian societies may also be reflecting the differences in the shared beliefs and expectations (e.g., cultural heritages of Buddhism and Confucianism in East Asia and Christianity and Greek philosophy in North America). Ecological conditions such as the level of food accumulation and prevalence of pathogens might have had evoked individualistic and collectivistic psychological processes initially, but what accounts for North America-East Asia difference on IND-COL today is unlikely these variables, at least not directly. More research on cultural transmission should reveal us how these two constellations of cultural and psychological processes that were evoked by certain ecological conditions might have been institutionalized and sustained within each culture context.

4.5. Future Directions

Culture and psychological processing are mutually constitutive. For this reason, investigations of cultural differences in approach and avoidance motivations requires two complementing perspectives: analyses of psychological processes that vary across cultures (i.e., analyses at individual level) as well as analyses of the cultural environments

that shape psychological processes, although the latter approach is relatively less common in this area of research. The two lines of research I will conduct in the near future focus on environments that elaborate approach and avoidance motivations differently across cultures.

The mutually constitutive relationship between culture and psychology suggests that differences in approach and avoidance motivation are reflecting differences in cultural environments. One example of this is Study 4 in this dissertation which found that the contents of what is regarded as a helpful book review differ between the US and Japan: helpful reviews in the US contained relatively greater amount of promotion contents compared to helpful reviews in Japan. This finding indicates that in a cultural environment where approach (avoidance) motivation is relatively more pronounced, information that contains greater amount of promotion (prevention) focused content is regarded as more helpful. Hence, this is one example of a cultural environment curved differently in accordance with approach and avoidance motivation cultural differences. In my future research, I will conduct more studies like this to uncover the fuller extent of differences between North American and Japanese cultures that are shaped differently as a function of approach and avoidance motivation differences.

In one such study, I will extend the finding from Study 4 in this dissertation. The finding from Study 4, that cultures differ on the conception of helpful information, suggests that cultures should also differ on the conception of what makes a message persuasive. That is, beliefs and attitudes of North Americans may be more likely to change when they are exposed to a promotion-focused message relative to prevention-focused message. Likewise, Japanese may find a prevention-focused message

to be more persuasive than a promotion focused message. As investigation of what makes a message persuasive is one of the central topics in social psychology, research has already linked approach and avoidance motivation to persuasive communication. This research has found that people are more likely to change their attitudes and behaviors when a message advocating such a change is congruent with their chronic approach or avoidance motivation (Spiegel, Grant-Pillow, & Higgins, 2004; Sherman, Mann, & Updegraff, 2006). Application of this body of evidence in cross-cultural research is an important work yet to be carried out. For instance, a study could examine whether an approach focused message is more effective than an avoidance focused message in marketing a product in North American cultures, and whether an avoidance focused message is more effective than an approach focused message for marketing in East Asia. To the extent that this hypothesis is confirmed, this simple study can show the implications of cultural differences in approach and avoidance motivation for persuasive communication.

Another area of my future research will focus on social relationships. The family, friends, and acquaintances that constitute one's social environment profoundly influence psychological processes. Cross-cultural research on this topic has reported some profound difference in the nature of social relations across cultures.

In their review of this area of research, Brewer and Yuki (2007) identified that in highly mobile societies like North America, social relations tend to be relatively open and flexible. Individuals in this cultural context exert control over their social environment by frequently and voluntarily entering into and terminating social relationships (see also Adams & Plaut, 2003; Oishi, Lun, & Sherman, 2007; Yamagishi & Yamagishi, 1994).

One implication of the open nature of North American social relations is its large size. Compared to individuals from societies where social relations are less open and flexible, North Americans have a larger number of friends (Adams & Plaut, 2003), acquaintances (Tsuji, 2002) and people to interact with everyday (Wheeler, Reis, & Bond, 1989).

From this large pool of social interactions, individuals in this cultural context actively seek out social relations of their liking. There could be a number of "cues" used in sorting through social relations. One such cue is similarity. The similarity attraction effect, or the finding that people are attracted to others who are similar to themselves, is one of the classic findings in social psychology. The similarity attraction effect is observed presumably because people are more likely to be understood, feel validated, and/or liked by similar than dissimilar others (although consensus has not been reached yet on the mechanism underlying the similarity attraction effect). Hence, research on the similarity-attraction effect suggests that seeking out others who are similar to the self is one way in which North Americans exert control over their social relations. In summary, the available evidence alludes to the voluntarily formed and maintained nature of social relations of North Americans.

The motivational focus that is useful for such social relations would be socially approach motivation which focuses on positive aspects of social relations such as companionship, mutual understanding, excitement, and fun (Gable, 2006). To the extent that social relations in North America are formed voluntarily, a social approach motivation should facilitate the formation and maintenance of such social relations. For example, it seems that seeking out someone who shares similar interests and goals can be carried out much more efficiently if the person focuses on finding someone similar rather

than avoiding dissimilar others. Likewise, a search of someone who can satisfy one's emotional needs or need for companionship would be better served with the focus of seeking out those who possess particular characteristics rather than avoiding all those who do not meet the criteria. Thus, this consideration predicts that individuals embedded in social relations that are relatively flexible and voluntarily in nature, such as social relations in North America, are likely to navigate their social world with an approach motivation.

In contrast, in less mobile societies such as East Asian societies, individuals are embedded in social relations that are relatively fixed and long-lasting: one's network of friends and acquaintances stems from social relations that are ascribed to them from the particular social positions that one occupies, and individuals in this cultural context strive to maintain harmony within such social relations (Brewer & Yuki, 2007; Yamagishi & Yamagishi, 1994). The closed nature of social relations suggests that the size of the social network is relatively small among East Asians. In fact, studies have reported that compared to North Americans, East Asians have a smaller number of acquaintances (Tsuji, 2002) and number of people to interact with everyday (Wheeler et al., 1989). Importantly, among individuals embedded in relatively closed social relations, there is not much need of sorting through social relations using cues such as similarity. In fact, a few studies have reported the relative absence of the similarity attract effect among East Asians (Heine, Foster, & Spina, 2005; Schug et al., 2006).

In addition, in a closed and long-lasting social network, individuals are faced with the daunting task of keeping track of various social transactions that are taking place within their social network. Dishonored social transactions (e.g., obligations not met,

unreciprocated favors, etc) are likely to trigger negative repercussions across cultures, but the importance of avoiding such repercussions is probably greater in a closed social network as escaping from social relations, even a dysfunctional one, is not really an option in such an environment (Adams & Plaut, 2003). For this reason, in these environments people come to manage their social exchanges carefully. For example, although exchanges of gifts can strengthen ties within social relations, gifts in many societies around the world are exchanged carefully as the acceptance of a large gift would obligate the recipients to return the gift of the similar size which could put them into a vulnerable position (Henrich et al., 2005).

Interestingly, this cautious attitude regarding social exchanges explains the seemingly paradoxical findings that East Asians seek social support from their friends *less* compared to North Americans (Kim, Sherman, Ko, & Taylor, 2006; Taylor et al., 2004). According to this research, East Asians seek social support less compared to North Americans as they are concerned that their act of help seeking would negatively affect their social relations. In order to examine if such a concern really underlies East Asians' reluctance to seek help, in one study Kim and colleagues assigned Asian-American and European-American participants to write about either their personal goals, goals they have in common with ingroup members, or nothing (control). Following this manipulation, participants completed a measure of social support seeking. Among European-Americans, the level of social support seeking did not vary across conditions. In contrast, Asian-Americans' social support seeking varied significantly across conditions. Participants in the ingroup goal condition were much less likely to seek social support compared to those in the personal goal condition. Participants in the control

condition were also less likely to seek social support compared to those in the personal goal condition. What these findings indicate is that Asian-Americans' interpersonal concerns are working as obstacles in their social supporting seeking. For this reason, Asian-Americans in the personal goal condition, whose interpersonal concerns were less salient, were more likely to seek out for support compared to others. Moreover, to the extent that those in the control condition were also less likely to seek support compared to those in the personal goal condition, it suggests that the relational concerns are habitually salient concerns for Asian-Americans (Kim et al., 2006). Hence, this research suggests that it is concerns for negatively affecting social relations that account for the reluctance of help seeking among East Asians. In summary, accumulating findings suggest that individuals embedded in relatively closed social relations devote their psychological resources to carefully manage social exchanges and also to avoid negatively affecting their social relations.

The motivational focus that is useful in this cultural context would be socially avoidance motivation, focusing on avoiding negative and unpleasant experiences in social relations such as disagreement and conflict (Gable, 2006). Hence, this consideration predicts that individuals embedded in social relations that are relatively closed, such as social relations in East Asia, are more likely to adopt an avoidance motivation in their social interactions.

I plan to test this hypothesis with a series of studies. The first study will simply compare the level of social approach and avoidance motivations between North Americans and East Asians using an established self-report measure (Gable, 2006) with modifications made on its response format (i.e., forced choice format) to avoid the issues

of cross-cultural difference in response style (e.g., Hamamura, Heine, & Paulhus, 2008; Heine, Lehman, Peng, & Greenholtz, 2002). I will also measure the extent to which one's social relations are open or closed (Oishi, Lun, & Sherman, 2007; Schug et al., 2006) and examine whether the openness of social relations predicts social approach and avoidance motivations in the predicted manner. In addition, I will devise a behavioral measure of social approach and avoidance motivation in order to seek the convergence of findings across methods. To the extent that the hypothesis considered here is supported, this research would inform us the mutual constitution between social relations and approach-avoidance motivation. The social environment that surrounds individuals fosters social approach or avoidance motivations, and individuals' social approach or avoidance motivations facilitate the maintenance of their social relations.

In conclusion, my future research attempts to explore the nature of the cultural environments that foster approach-avoidance cultural differences. This line of research should shed light on the question of how universal psychological processes of approach and avoidance motivations comes to be elaborated differently across cultures.

References

Adams, G., & Plaut, V. C. (2003). The cultural grounding of personal relationship: Friendship in North American and West African worlds. *Personal Relationships, 10*, 333-347.

Barry Iii, H., Child, I. L., & Bacon, M. K. (1959). Relation of child training to subsistence economy. *American Anthropologist, 61*, 51-63.

Berry, J. W. (1967). Independence and conformity in subsistence-level societies. *Journal of Personality & Social Psychology, 7*, 415-418.

Brewer, M. B., & Yuki, M. (2007). Culture and social identity. *Handbook of Cultural Psychology*.

Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological bulletin, 127*, 451-471.

Cohen, D., Vandello, J., Puente, S., & Rantilla, A. (1999). " When you call me that, smile!" How norms for politeness, interaction styles, and aggression work together in southern culture. *Social Psychology Quarterly, 62*, 257-275.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*: Lawrence Erlbaum Associates.

Cousins, S. D. (1989). Culture and self-perception in Japan and the United States. *Journal of Personality and Social Psychology, 56*, 124-131.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*, 169-189.

Elliot, A. J., Chirkov, V. I., Kim, Y., & Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science, 12*, 505-510.

Fincher, C., Thornhill, R., Murray, D., & Schaller, M. (in press). Pathogen prevalence predicts human cross-cultural variability in individualism/collectivism. *Proceedings of the Royal Society B: Biological Sciences*.

Gable, S. L. (2006). Approach and avoidance social motives and goals. *Journal of Personality, 74*, 175–222.

Hamamura, T., Heine, S. J., & Paulhus, D. L. (2008). Cultural differences in response styles: The role of dialectical thinking. *Personality and Individual Differences, 44*, 932-942.

Heine, S. J., Foster, J. A., & Spina, R. (2005). Where birds of a feather might not flock together. *Cultural Psychology Preconference at the annual meeting of the Society for Personality and Social Psychology, New Orleans, LA*.

Heine, S. J., & Lehman, D. R. (1999). Culture, self-discrepancies, and self-satisfaction. *Personality and Social Psychology Bulletin, 25*, 915.

Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology, 82*, 903-918.

Heine, S. J., & Renshaw, K. (2002). Interjudge agreement, self-enhancement, and liking: Cross-cultural divergences. *Personality and Social Psychology Bulletin, 28*, 578-587.

Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., et al. (2005). "Economic man" in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and Brain Sciences, 28*, 795-815.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280-1300.

Hofstede, G. H. (1984). *Culture's consequences: International differences in work-related values*: Sage Publications.

Huntington, S. P. (1998). *The clash of civilizations and the remaking of world order*. New York: Simon & Schuster.

Inglehart, R., & Baker, W. E. (2000). Modernization, globalization and the persistence of tradition: Empirical evidence from 65 societies. *American Sociological Review, 65*, 19-55.

Kim, H. S., Sherman, D. K., Ko, D., & Taylor, S. E. (2006). Pursuit of comfort and pursuit of harmony: Culture, relationships, and social support seeking. *Personality and Social Psychology Bulletin, 32*, 1595.

Kwan, V. S., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038-1051.

Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122-1134.

Lockwood, P., Marshall, T. C., & Sadler, P. (2005). Promoting success or preventing failure: cultural differences in motivation by positive and negative role models. *Personality and Social Psychology Bulletin, 31*, 379.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

Meijer, Z., Heine, S. J., & Yamagami, M. (1999). *Remember those good ol' days? Culture, self-discrepancies and biographical memory*. Paper presented at the 3rd conference of the Asian Association of Social Psychology.

Nisbett, R. E. (2003). *The geography of thought: Why we think the way we do*. New York: Free Press.

Oishi, S., Lun, J., & Sherman, G. D. (2007). Residential mobility, self-concept, and positive affect in social interactions. *Journal of Personality and Social Psychology, 93*, 131-141.

Prentice, D. A., & Miller, D. T. (1993). Pluralistic ignorance and alcohol use on campus: Some consequences of misperceiving the social norm. *Journal of Personality and Social Psychology, 64*, 243-256.

Schug, J. R., Yuki, M., Sato, K., Horikawa, H., Takemura, K., & Yokota, K. (2006). Can birds of a feather flock together? How cross-societal differences in relationship mobility affect the selection of similar others. Unpublished manuscript. Hokkaido University.

Sherman, D. K., Mann, T., & Updegraff, J. A. (2006). Approach/avoidance motivation, message framing, and health behavior: understanding the congruency effect. *Motivation and Emotion, 30*, 164-168.

Spiegel, S., Grant-Pillow, H., & Higgins, E. T. (2004). How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology, 34*, 39-54.

Takagi, K. (2005). *Approach-avoidance goals and psychological well-being, health, and interpersonal relationship outcomes across Euro-Canadian, Japanese, and Mexican cultures.* Unpublished Master's thesis, University of British Columbia, Vancouver, BC.

Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: Who seeks it and why. *Journal of Personality and Social Psychology, 87*, 354-362.

Tsuji, R. (2002). *Estimating acquaintanceship volume in Japan and US.* Paper presented at the Mathematical Sociology in Japan and in America: A Joint Conference Vancouver, BC.

Wheeler, L., Reis, H. T., & Bond, M. H. (1989). Collectivism-individualism in everyday social life: The middle kingdom and the melting pot. *Journal of Personality and Social Psychology, 57*, 79-86.

Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation and Emotion, 18*, 129-166.

Appendix A: UBC Research Ethics Board Certificates of Approval

For Study 1

UBC

The University of British Columbia
Office of Research Services and Administration
Behavioural Research Ethics Board

Certificate of Approval

PRINCIPAL INVESTIGATOR	DEPARTMENT	NUMBER
Heine, S.J.	Psychology	**B06-0686**

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT
UBC Campus ,

CO-INVESTIGATORS:
Hamamura, Takeshi, Psychology

SPONSORING AGENCIES

TITLE:
Puzzle Performance Assessment

APPROVAL DATE	TERM (YEARS)	DOCUMENTS INCLUDED IN THIS APPROVAL:
OCT 0 4 2006	1	Aug. 9, 2006, Advertisement / Consent form / Questionnaires

CERTIFICATION:

The application for ethical review of the above-named project has been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

—————————————————————
Approved on behalf of the Behavioural Research Ethics Board
by one of the following:
Dr. Peter Suedfeld, Chair,
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair

This Certificate of Approval is valid for the above term provided there is no change in the experimental procedures

For Study 2

UBC The University of British Columbia
Office of Research Services and Administration
Behavioural Research Ethics Board

Certificate of Approval

PRINCIPAL INVESTIGATOR	DEPARTMENT	NUMBER
Heine, S.J.	Psychology	**B04-0571**

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT

UBC Campus ,

CO-INVESTIGATORS:

Hamamura, Takeshi, Psychology

SPONSORING AGENCIES

National Institute of Mental Health (US)

TITLE :

Verbal Intelligence and Psychological Adjustment

APPROVAL DATE	TERM (YEARS)	DOCUMENTS INCLUDED IN THIS APPROVAL:
SEP – 7 2004	1	Sept. 2, 2004, Verbal info / Feed back letter, Aug. 3, 2004, Verbal puzzles

CERTIFICATION:

The protocol describing the above-named project has been reviewed by the
Committee and the experimental procedures were found to be acceptable on ethical
grounds for research involving human subjects.

Approval of the Behavioural Research Ethics Board by one of the following:
Dr. James Frankish, Chair,
Dr. Cay Holbrook, Associate Chair,
Dr. Susan Rowley, Associate Chair
Dr. Anita Hubley, Associate Chair

This Certificate of Approval is valid for the above term provided there is no change in
the experimental procedures

For Study 3

UBC

The University of British Columbia
Office of Research Services and Administration
Behavioural Research Ethics Board

Certificate of Approval

PRINCIPAL INVESTIGATOR	DEPARTMENT	NUMBER
Heine, S.J.	Psychology	**B05-0577**

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT

UBC Campus ,

CO-INVESTIGATORS:

Hamamura, Takeshi, Psychology; Takagi, Kaori, Psychology

SPONSORING AGENCIES

National Institute of Mental Health (US)

TITLE :

Personality and Movie Review

APPROVAL DATE	TERM (YEARS)	DOCUMENTS INCLUDED IN THIS APPROVAL:
JUL 1 1 2005	1	June 21, 2005, Advertisement / Consent form / Questionnaire

CERTIFICATION:

The protocol describing the above-named project has been reviewed by the Committee and the experimental procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval of the Behavioural Research Ethics Board by one of the following:
Dr. James Frankish, Chair,
Dr. Cay Holbrook, Associate Chair,
Dr. Susan Rowley, Associate Chair

This Certificate of Approval is valid for the above term provided there is no change in the experimental procedures