

# Self-Regulation Across Cultures: New Perspective on Culture and Cognition Research

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## Introduction

The field of cultural psychology has flourished in recent years with rapidly increasing number of papers documenting ways in which culture influences psychological processes including the most basic processes of cognition, such as attention, perception and reasoning (for a review see Nisbett, Peng, Choi, & Norenzayan, 2001).

Individualism-collectivism is one dimension of culture that gave rise to much research in the field. This dimension in essence captures variations in the ways in which individuals relate to others within society. In individualistic societies (e.g., North America), individuals are understood to be autonomous and relatively independent of others, and there tends to be a clear distinction between the self and others. In contrast, in collectivistic societies (e.g., societies in East Asia) individuals are deeply integrated within their social network (e.g., roles and obligations) and the boundary between the self and others tend to be relatively less distinct (Markus & Kitayama, 1991; Triandis, 1995).

One important implication of cultural variation in individualism-collectivism is on self-evaluation. People everywhere might be motivated to view themselves as “a good person” (Norenzayan & Heine, 2005), nonetheless cultural variation in individualism-collectivism suggests variation in the conception of what is a “good person” as well (Heine, Lehman, Markus, & Kitayama, 1999). In particular, in individualistic cultures such as North America where the self is to be independent of others, possessing high self-esteem seems how one sees the self as being a “good person.” For this reason, individuals strive to view themselves in the positive light or self-enhance sometimes even in unrealistically positive terms (Taylor & Brown, 1988). On the other hand, in collectivistic cultural contexts such as societies in East Asia in which the self is situated within the social network, being a good person hinges on whether one maintains his or her “face” or status associated with a particular social position that one occupies (Heine et al., 1999).

To the extent that self-esteem is maintained by many distinct psychological mechanisms, one could predict that face is also maintained by a number of psychological processes (Heine, 1999). Prevention oriented self-regulation (Higgins, 1996) is one such mechanism. Prevention focus is important for face maintenance for the following reason. Face differs from self-esteem in many different ways but one important difference is its vulnerability for loss. This is so because face is maintained only to the extent that one is able to meet others’ expectations. Gaining face on the other hand is difficult as the only way to do so is to move up the social hierarchy (Hamamura & Heine, in press). As East Asians are

concerned about this inherently vulnerable resource, their self-regulation is more likely to be aimed at preventing negative outcomes. In contrast, self-esteem as a resource is easier to gain as individuals have much control over their self-esteem. For this reasons, the pattern of self-regulation among those who are concerned about self-esteem maintenance (i.e., North Americans) should be promotion oriented, focusing on approaching positive outcomes (Hamamura & Heine, in press). Recent cross-cultural studies confirm this rationale (Elliot, Chirkov, Kim, & Sheldon, 2001; Lee, Aaker, & Gardner, 2001; Lockwood, Marshall, & Sadler, 2005).

As the topic of self-regulation is something that has been studied extensively (Higgins, 1996; Higgins & Spiegel, 2004), theoretical connections between cultural variation in self-evaluation and self-regulation allow cultural psychologists to generate a number of novel hypotheses which would allow us to greatly advance the current understanding of the ways in which culture influences psychology. In this paper, we would like to introduce two such hypotheses.

## Motivating People Across Cultures

Prior research suggests that there is a boost in one’s motivation when one’s regulatory focus matches with what a task requires of him or her (Higgins & Spiegel, 2004). For instance, it has been shown that promotion oriented individuals tend to perform better on a puzzle when it is framed in promotion term (e.g., scoring points for correct answers) whereas prevention oriented individuals perform the same task better under the prevention instruction (e.g., losing points for incorrect answers). This finding has an important implication for cross-cultural research as it implies that a way of motivating people may differ across cultures. Current research investigates this possibility.

## Method

Sixty-seven Canadians and 75 Japanese participants took part in a computerized pattern recognition test (see Figure 1). The Canadian sample was taken from psychology department subject pool, and in order to invite acculturated Canadians only those students who spoke English at home were recruited. The Japanese sample was recruited in Vancouver, and only those who have been away from Japan less than 1 year were eligible to participate.

In the study, half of the participants (random assignment) were told that they will earn a nickel for each correct response (promotion instruction) and the other half was told that they will start with \$2 and lose one nickel for each incorrect response or unanswered problem (prevention instruction). The English materials were translated to Japanese by a team of bilinguals.

◆	✕	□	☹	☒	❖	⊗	∩	∩	∩
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Figure 1: Pattern recognition test

### Results & Discussion

As predicted, an interaction revealed that Japanese participants performed slightly better (obtained more nickels) under the prevention instruction than the promotion instruction whereas the pattern was reversed for the Canadians,  $F(1, 138) = 3.61^1, p < .06$  (Figure 2).

This finding supports the hypothesis that Canadians and Japanese, due to the difference in their regulatory focus, are approaching the same task with two different mindsets. Nevertheless, in both cultures performance was enhanced when the task instruction matched with the more culturally common mindset that participants brought with them compared to the case where there was a mismatch between mindset and instruction. In sum, this study finds that way of enhancing performance on a task differs importantly as a function of ones' cultural upbringing.

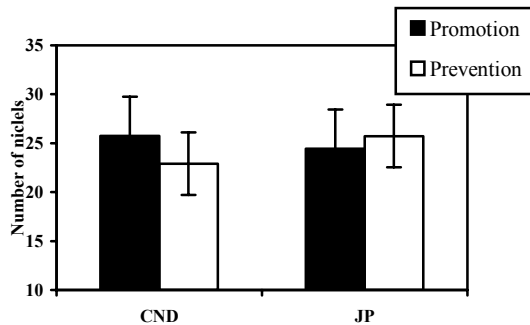


Figure 2: Performance in the pattern recognition test (Error bars indicate 95% confidence interval)

### Memory Bias Across Cultures

Prior research has shown that kind of information individuals habitually attend to and remember varies importantly across cultures (e.g., Masuda & Nisbett, 2001). In the current research, we investigated if cultural difference in the self-regulation has any implication on memory. Extending prior research in social psychology (Higgins & Tykocinsky, 1992), we hypothesized that Japanese will exhibit a memory bias favoring information framed in the prevention terms whereas

Canadians will exhibit a bias toward information framed in the promotion terms.

### Method

Prior to the study, a large number of people's opinions about movies were obtained from American and Japanese movie review websites. These opinions were classified into four categories (presence or absence of positive elements and presence or absence of negative elements). Then, 20 Canadian and 10 Japanese participants rated the opinions on how memorable and informative they are, and only those opinions rated highly were retained. The final list consisted of 4 opinions in each of the four categories as well as 4 opinions that were neutral.

In the study participants were first asked to study and memorize the opinions, and after a distraction task, they recalled as much as they could in 5 minutes. Also, participants completed a measure of prevention-promotion focus (Lockwood et al., 2002). The English materials were translated to Japanese by a team of bilinguals.

Fifty-four Canadians who spoke English at home and 62 Japanese living in Vancouver less than two years were recruited.

### Results & Discussion

A questionnaire measure of prevention-promotion focus revealed a greater prevention focus among Japanese participants compared to Canadians,  $t(114) = 3.66, p < .001$ .

Participants' free recalls were coded by 2 coders for each language. A high intercoder reliability was achieved (86% for Japanese and 93% for English). Discrepancies were resolved by discussion.

A repeated measure ANOVA controlling for recalls of neutral opinions revealed a significant interaction ( $F(1, 113) = 4.72, p < .05$ ; Figure 3). Canadians exhibited significantly better recall for the promotion opinions compared to the prevention opinions ( $t(53) = 4.66, p < .001$ ). Japanese exhibited the same pattern though the difference was smaller ( $t(61) = 1.91, p = .06$ ). The observed interaction, however, was not mediated by the self-report measure of prevention-promotion focus.

In sum, this study finds the cultural difference in memory bias in that while Canadians tend to recall promotion information more so than prevention information, the tendency is smaller among Japanese.

<sup>1</sup> Japanese participants were significantly older than Canadians,  $F(1,138) = 6.65, p < .05$ , and age correlated significantly with number of nickels obtained,  $r(141) = -.18, p < .05$ . For this reason, age was controlled in the analysis.

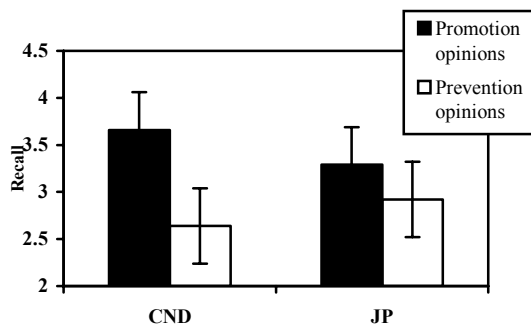


Figure 3: Recall of opinions (Error bars indicate 95% confidence interval)

### Conclusion

North Americans and East Asians are chronically concerned about resources (self-esteem and face) that differ in their vulnerability for loss (Heine et al., 1999). This difference in turn gives rise to cultural variation in self-regulation with North Americans exhibiting greater tendency of promotion focus and East Asians exhibiting greater prevention focus.

To the extent that self-regulation is one of the best researched topics in psychology with its many intriguing implications documented in the vast literature (for a review see, Higgins & Spiegel, 2004), cross-cultural researchers will benefit greatly from this theoretical connection.

This paper introduces two lines of research on this topic. The first study focused on the extent to which instruction framed in promotion and prevention terms influences one's performance differently across cultures. The second study focused on memory bias exhibited for information framed in promotion or prevention terms.

There are lots more to explore in this area. In particular, Higgins & Spiegel (2004) review a number of studies that have uncovered the implications of self-regulation on cognition (e.g., perception of time, levels of processing). Hence, exploring this area of research from a cross-cultural perspective will add greatly to our current understanding of the ways in which culture influences the processes of cognition (e.g., Nisbett et al., 2001). In conclusion, cultural variation in regulatory focus is a theoretical perspective that is very rich in its potential contributions.

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