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## West vs. West like East vs. West? A comparison between Italian and US American context sensitivity and Fear of Isolation

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**Abstract** Easterners tend to process information more holistically than Westerners. Kim and Markman (J Exp Soc Psychol 42(3):350–364, 2006) suggest that these differences are rooted in higher chronic levels of Fear of Isolation (FOI) for those cultures that process information more holistically. The goal of this study was to determine if these differences and their suggested cause could be found with two different Western cultures. Testing Italian (IT) and US American (US) adults, we found that IT participants processed information more holistically and had a higher chronic level of FOI than US participants; furthermore, the manipulation of FOI affected context sensitivity more for IT than for US participants. The results demonstrate that IT participants were more similar to previous research with Eastern populations than with Western populations (Kim

and Markman in J Exp Soc Psychol 42(3):350–364, 2006) and indicate a within-Western culture difference for reasoning styles and support the hypothesis that this difference is due to different chronic levels of FOI.

### Introduction

Intercultural differences in reasoning styles

Westerners are said to reason using a linear and sequential logic and focus mainly on the individuals involved in a relationship. In contrast, Easterners are said to reason in pursuit of a “middle way” and focus on the relationships between individuals (Choi and Nisbett 2000; Gardner et al. 1999; Ji et al. 2000; Masuda and Nisbett 2006; Nisbett 2004; Spector et al. 2004).

If these East vs. West differences are based on individualism vs. collectivism, or on how people from these cultures are context influenced (Lewis et al. 2008; Nisbett 2004), then it could be that some Western cultures show an Eastern style of reasoning. We examine whether this is the case for Italians because Italians might be more collectivistic than US Americans (the standard Western culture examined in previous research) and because Italians have been found to more context influenced (when communicating) than US Americans (Rösch and Segler 1987).

In this paper, we begin by discussing two separate approaches to cross-cultural research, one that focuses on individualism vs. collectivism (e.g., Nisbett et al. 2001) and another that focuses on chronic social/environmental factors (e.g., Kim and Markman 2006; Miyamoto et al. 2006). Then, we discuss the possibility of a within-Western culture difference between Italian and US American reasoning style and that the cause of this difference is, in part, due to

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within-cultural chronic differences in Fear of Isolation (FOI). We then present a study where manipulated FOI lead to differences in context sensitivity.

#### Demonstrating differences vs. causally understanding differences

Research on cultural differences suggests that there are significant differences in reasoning styles between-cultures (Choi and Nisbett 2000; Masuda and Nisbett 2001, 2006; Ji et al. 2000). For instance, Masuda and Nisbett (2001) found Easterners to be more strongly influenced by context in a recognition memory task than Westerners. They asked Japanese and US American participants to study animal pictures against a background. Participants were later tested for recognition memory. At test, the pictures used either the identical study background or a different one. Japanese (but not American) participants were more likely to recognize an animal when it appeared with the original background than when it appeared with a new background.

Nisbett and colleagues explain these cultural differences as the result of individualism dominance in Western cultures and collectivism dominance in Eastern cultures. The attempt to demonstrate that collectivism vs. individualism is the fountain of the Eastern vs. Western cross-cultural differences underestimates the fact that there are much greater within-culture variations on this dimension than between-culture (Hong and Chiu, 2001). Unfortunately, some intercultural studies do little in helping us understand why Easterners and Westerners have different reasoning styles (exceptions include, Chiu et al. 2010; Kim and Markman 2006; Masuda and Nisbett 2006, Ross and Wang 2010).

Another approach is to consider environmental factors as a causal mechanism for these observed cultural differences. For example, Masuda and Nisbett (2006) found that Japanese towns contained more objects and were more complex than US American towns and that American and Japanese participants when primed with pictures of Japanese towns performed better on a change-blindness task than when primed with pictures of US American towns.

Kim and Markman (2006) consider chronic social factors, like FOI, as a causal mechanism for cultural differences. FOI is the anxiety or fear of situations where one feels lonely, alone, confined or quarantined (Baumeister and Leary 1995). Kim and Markman (2006) not only demonstrated that Easterners have higher levels of FOI than Westerners but they also experimentally manipulated FOI (for US Americans). In the low FOI group, participants wrote about an experience in which they had isolated another individual from their group, while in the high FOI group, participants wrote about an experience of being

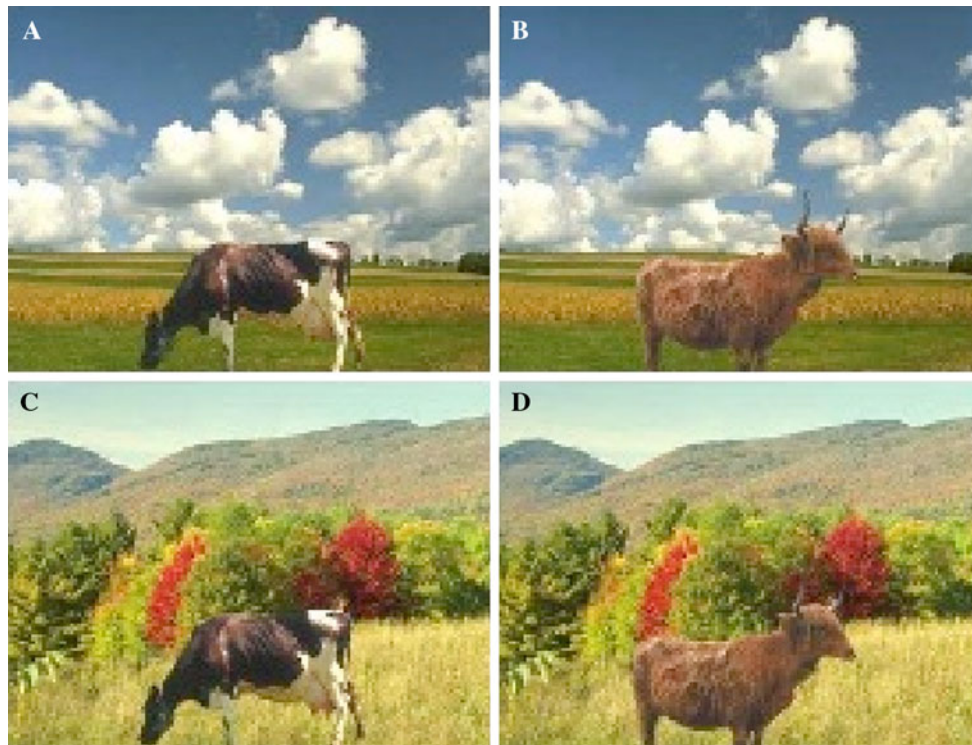
isolated from a group. Later, participants were shown photographs of animals with either the same background (Fig. 1a and b) or in a new background (Fig. 1c and d). Inducing a high level of FOI lead participants to attend more to relationships between context and focal objects and resulted in participants being more likely to incorrectly recognize an old animal when it appeared with a new background than with an old background. Interestingly, using identical materials used by Masuda and Nisbett (2001) and Peng and Nisbett (1999), Kim and Markman (2006) found that following the FOI manipulation, participants in the high FOI group were more likely to rely on context (as opposed to target) in a recognition memory task. Thus, US American participants were more likely to recognize an animal when it appeared with the original background than when it appeared with a new background following the FOI manipulation. In other words, by manipulating FOI, one can produce reasoning preferences in US Americans similar to those of Easterners.

Importantly, by inducing Westerners to reason similar to Easterners, Kim and Markman (2006) demonstrated that it is unlikely that differences in cognitive styles between these cultures are due to differences in innate cognitive architectures but rather the result of chronic social factors (among other things) like the need to belong (Baumeister and Leary 1995). FOI, therefore, could play a causal role in cultural differences. It is likely that the priming of FOI makes people pay more attention to multiple individuals thus causing a greater attention to the overall context. Therefore, members of cultures with high chronic FOI (e.g., Eastern) should be more interested in relations between people and between people and their environment than members of cultures with lower chronic FOI (e.g., Western).

#### Is Italian reasoning style more Western or Eastern?

The present research attempts to demonstrate that pervasive differences in social environments across cultures may play a causal role in observed cultural differences, even when those cultural differences are within two Western cultures. In particular, we attempt to extend previous research (Kim and Markman 2006) that suggests that FOI, or the fear/anxiety of being excluded from the group which leads to loneliness (Baumeister and Leary 1995) has a causal role in cultural differences between two Western cultures.

In this experiment, we explore whether differences in FOI between US Americans and Italians are similar those previously found between Westerners and Easterners (Kim and Markman 2006) and if those differences influence context sensitivity similar to differences in recognition memory found in the intercultural research by Masuda and Nisbett (2001). In a pilot study, Kim and Markman (2006)



**Fig. 1** **a** Study picture. **b** Novel animal, original background. **c** Original animal, novel background. **d** Novel animal, Novel background. (from Kim and Markman 2006)

found that Europeans have a higher chronic FOI ( $M = 12.82$ ) than US Americans ( $M = 11.54$ ); therefore, if Italians have a higher chronic level of FOI than US Americans, then Italians, despite belonging to a Western culture, could be more sensitive to context information than US Americans. These findings would indicate a surprising heterogeneity in cultures considered to be Western.

Experiment: effect of FOI and culture on recognition memory

If attention to relationships between objects and context influences recognition memory, then individuals with high levels of FOI should increase memory for context due to a decrease in attention for the focal object. Thus, participants with both chronically and experimentally induced high levels of FOI should be more influenced by background information than participants with lower levels of FOI. Thus, high levels of FOI will be associated with better recognition memory for the original animal when presented with the original background and poorer recognition memory when the original animal is presented with a novel background. If there are within-culture differences between Italian and US American participants in terms of chronic levels of FOI, then recognition memory performance should be worse for Italian participants when the original animals are presented with a novel background.

## Method

### Design

The experiment uses a 3 (FOI: *Isolatee*, *Isolator*, *Control*)  $\times$  2 (background: Original vs. Novel)  $\times$  2 (culture: Italian vs. US American) design. FOI was manipulated between subjects, while the background was manipulated within subjects.

### Participants

Twenty-four US American students from the Umbra Institute in Perugia (all born in the United States, age  $M = 21$ , 3 men, 21 women) and 26 Italian students (all born in Italy, age  $M = 26$ , all women) from the University of Perugia participated in the study.

### Procedure

Participants were randomly assigned to one of three conditions, *Isolatee*, *Isolator* or *Control*. In the first part of the experiment, participants in the experimental conditions wrote about their experiences with social isolation. In the *Isolatee* condition, participants wrote about being socially isolated from others, whereas in the *Isolator* condition participants wrote about socially isolating someone else.

Participants assigned to the *Control* condition wrote about their daily morning routine. Participants in the *Isolatee* condition were expected to have a higher FOI than participants in the *Isolator* condition (Kim and Markman 2006).

Participants then completed the Fear of Negative Evaluation (FNE) Scale (Watson and Friend 1969) as a manipulation check and as a measure of chronic FOI. The FNE scale is a 30-item instrument that measures social anxiety about receiving negative evaluations from others. Scores on this scale are a reflection of a person's fear of the loss of social approval. People who have a high chronic FOI are those who would be most susceptible to the priming technique.

Following completion of the FNE scale, 24 animal photographs in naturalistic environments were presented randomly for 5 s each (Fig. 1). Immediately following picture presentation participants rated how much they liked each animal on a 9-point scale, with 1 being extremely likeable and 9 being extremely unlikeable. After having completed the likability ratings, participants completed a 2-min distraction task that consisted of starting with the number 1,000, counting backwards by 7 s. Then 96 animal photographs were presented in naturalistic backgrounds. Twenty-four of the 96 photographs were identical to those used in the first part of the experiment (Fig. 1a) while the remaining 72 were either 24 photographs of a new animal in the old background (Fig. 1b), 24 photographs of the same animal in a new background (Fig. 1c), or 24 photographs of a new animal in a new background (Fig. 1d). All 96 pictures were identical to those used by Masuda and Nisbett (2001).

## Results

Likeability ratings for the US and Italian participants were pooled, and no significant difference was found for these ratings,  $t(48) < 1$ . The *Control* and *Isolator* conditions did not differ on the FNE for the US American participants (US American control:  $M = 11.13$ , US American *Isolator*:  $M = 10.88$ ,  $t(14) < 1$ ) nor for the Italian participants (Italian control:  $M = 17.11$ , Italian *Isolator*:  $M = 15$ ,  $t(15) = 1.56$ ,  $P > .05$ ). Collapsing across these conditions, average values on the FNE were significantly higher for the Italian participants than for the US participants (Italian *Isolator/Control*:  $M = 16.12$ , US American *Isolator/Control*:  $M = 11$ ,  $t(31) = 5.82$ ,  $P < .05$ ). The *Isolatee* condition differed significantly from the *Isolator/Control* condition for the US American participants (US American *Isolatee*:  $M = 16.25$ , US American *Isolator/Control*:  $M = 11$ ,  $t(24) = 3.42$ ,  $P < .05$ ) as well as for the Italian participants (Italian *Isolatee*:  $M = 20.11$ , Italian *Isolator/Control*:  $M = 16.12$ ,  $t(22) = 7.03$ ,  $P < .05$ ).

A three-way ANOVA of FOI condition (*Isolatee* vs. *Isolator/Control*)  $\times$  background (Original vs. Novel)  $\times$  culture (Italian vs. US American) revealed a significant interaction between these factors ( $F(2,48) = 28.12$ ,  $P < .01$ ). When US American participants viewed photographs with the original background, the *Isolatee* group showed relatively greater accuracy than did the *Isolator/Control* group (*Isolatee*:  $M = 95.38\%$ , *Isolator/Control*:  $M = 90\%$ ,  $t(22) = 3.32$ ,  $P < .05$ ) (Fig. 2). These results paralleled those for the Italian participants (*Isolatee*:  $M = 96\%$ , *Isolator/Control*:  $M = 90.69\%$ ,  $t(24) = 3.36$ ,  $P < .05$ ). When US American participants viewed photographs with a novel background, the *Isolatee* group showed poorer recognition than the *Isolator/Control* group (*Isolatee*:  $M = 81.88\%$ , *Isolator/Control*:  $M = 96.68\%$ ,  $t(22) = 3.97$ ,  $P < .05$ ). Again these results paralleled those for the Italian participants (*Isolatee*:  $M = 78.33\%$ , *Isolator/Control*:  $M = 82.38\%$ ,  $t(24) = 1.93$ ,  $P = .066$ ). However, the difference between Italian and US American responses was significant only for the novel background condition (Italian *Isolatee*:  $M = 78.33\%$ , US American *Isolatee*:  $M = 81.88\%$ ,  $t(15) = 2.36$ ,  $P < .05$ ; Italian *Isolator/Control*:  $M = 82.38\%$ , US American *Isolator/Control*:  $M = 86.69\%$ ,  $t(31) = 2.68$ ,  $P < .05$ ).

Responses for new items were analyzed with a three-way ANOVA of FOI condition (*Isolatee* vs. *Isolator/Control*)  $\times$  background (Original vs. Novel)  $\times$  culture (Italian vs. US American). Consistent with both Masuda and Nisbett (2001), and Kim and Markman (2006), the interaction of these factors was not significant ( $F(2,48) = .96$ ,  $P > .05$ ). A main effect of background was revealed ( $F(2,48) = 23.11$ ,  $P < .05$ ). Both the *Isolatee* group and the *Isolator/Control* group made fewer mistakes when they saw novel objects with original backgrounds.

## Discussion and conclusions

This study demonstrated that chronic as well-manipulated FOI influenced context sensitivity and recognition

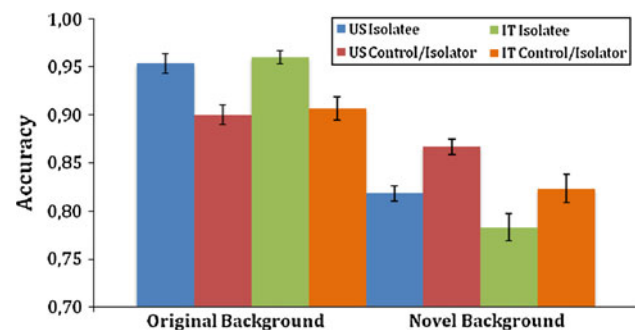


Fig. 2 Recognition accuracy for previously seen animals

memory, replicating the results of Kim and Markman (2006) as well as paralleling those of Masuda and Nisbett (2001) who found cultural differences in attention and memory. We found that higher levels of FOI were associated with increased context sensitivity and reduced recognition memory much like that of previous research on East Asian participants. Kim and Markman (2006) found that participants in the Isolator condition (which was associated with lower levels of FOI) performed better on the recognition memory test and were therefore less influenced by context information than those in the Isolatee condition (which was associated with higher levels of FOI). As seen in Fig. 2, our results are consistent with this pattern across both Italian and US American cultures. These results demonstrate for the first time a within-cultural difference on context sensitivity between two Western cultures.

We found that Italian participants have a higher chronic FOI than US American participants mirroring previous results which demonstrated that Korean participants have a higher chronic FOI than do US American participants (Kim and Markman 2006). Our findings indicate that Italians have a high chronic level FOI that is more similar to Eastern than to other Western, i.e., US American cultures. We found that inducing a higher level of FOI influenced recognition memory within two Western cultures similar to what was observed in previous research comparing Eastern and Western cultures (Masuda and Nisbett 2001). Italian participants tended to perform worse than US American participants on the recognition memory task much as Japanese participants did in Masuda and Nisbett's (2001) study. FOI appears to have a more significant impact on recognition memory when the background information was novel and that this effect was more pronounced for Italian participants compared to US American participants. Based on previous research (Kim and Markman 2006; Masuda and Nisbett 2001), our results indicate that Italian participants' recognition memory performance is more similar to Eastern than to other Western, US American participants.

Our research indicates that chronic social factors, like FOI, can be promoted more or less within two Western cultures as previous research has demonstrated between Western and Eastern cultures (Kim and Markman 2006) and that chronic differences in FOI between Italian and US American participants can lead to large differences in cognitive processing previously found between Western and Eastern cultures.

Previous research that indicates central tendency differences between Western (typically US Americans) and Eastern (typically Korean, Chinese and Japanese) participants for contextual reasoning (Peng and Nisbett 1999), recognition memory (Masuda and Nisbett 2001) and contradiction recognition (Choi and Nisbett 2000) uses a Western vs. Eastern between-culture explanation for those

central tendency differences. Troubling for previous research is the criticism that within-culture differences are often treated as random error (Hong and Chiu 2001) and that oversimplified generalizations are used to explain between cultural differences (Kim and Markman 2006).

This research demonstrates that terms like Western and Eastern may be simplifications given that features that supposedly distinguish East vs. West cultures can also be used to distinguish two so-called Western cultures. Therefore, this research indicates that before drawing conclusions about Western and Eastern cultures more research should be done comparing multiple Western and Eastern cultures. This point is especially valid since most previous research includes only US American participants as representatives for Western culture central tendencies on psychological measures (e.g., Choi and Nisbett 2000; Gardner et al. 1999; Ji et al. 2000; Masuda and Nisbett 2006; Nisbett 2004). While this research helps demonstrate that previously observed between-culture differences cannot be due to members of Eastern and Western cultures having *different innate cognitive architectures* as proposed by Nisbett and colleagues (e.g., Nisbett et al. 2001, 2004), future research on within-cultural differences could disentangle mechanisms (i.e., environmental, linguistic, political and economic) that differentiate central tendency differences between Eastern and Western culture participants on numerous psychological measures.

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