

Guo*, T., Ji, L.J., Spina*, R., & Zhang, Z. (in press). Culture, temporal focus, and values of the past and the future. *Personality and Social Psychology Bulletin*.

This article examines cultural differences in how people value future and past events. Throughout four studies, the authors found that European Canadians attached more monetary value to an event in the future than to an identical event in the past, whereas Chinese and Chinese Canadians placed more monetary value to a past event than to an identical future event. The authors also showed that temporal focus—thinking about the past or future—explained cultural influences on the temporal value asymmetry effect. Specifically, when induced to think about and focus on the future, Chinese valued the future more than the past, just like Euro-Canadians; when induced to think about and focus on the past, Euro-Canadians valued the past more than the future, just like Chinese.

Jacobson, J., Ji, L.J., Ditto, P.H., Zhang, Z., Reiss, S.K., Legnini, V., Sorkin, D., Roper-Coleman, S., Ebel-Lam, A. (2012). The Effects of Culture and Self-Construal on Responses to Threatening Health Information. *Psychology and Health*.

Objective: The current studies examined if cultural and self-construal differences in self-enhancement extended to defensive responses to health threats. **Design:** Responses to fictitious medical diagnoses were compared between Asian-Americans and European-North Americans in Experiment 1 and between Canadians primed with an interdependent versus an independent self-construal in Experiment 3. In Experiment 2, the responses of Chinese and Canadians who were either heavy or light soft drink consumers were assessed after reading an article linking soft drink consumption to insulin resistance. **Main outcome measure:** The primary-dependent measure reflected participants' defensiveness about threatening versus nonthreatening health information. **Results:** In Experiment 1, all participants responded more defensively to an unfavourable than a favourable diagnosis; however, Asian-Americans responded less defensively than did European-North Americans. In Experiment 2, all high soft drink consumers were less convinced by the threatening information than were low soft drink consumers; however, among high consumers, Chinese changed their self-reported consumption levels less than did European-Canadians. In Experiment 3, interdependence-primed participants responded less defensively to an unfavourable diagnosis than did independence-primed participants. **Conclusion:** Defensive reactions to threatening health information were found consistently; however, self-enhancement was more pronounced in individuals with Western cultural backgrounds or independent self-construals.

Rounding, K., Lee*, A., Jacobson, J., & Ji, L.J. (2012). Religion Replenishes Self-Control. *Psychological Science*. 23(6), 635-642.

Researchers have proposed that the emergence of religion was a cultural adaptation necessary for promoting self-control. Self-control, in turn, may serve as a psychological pillar supporting a myriad of adaptive psychological and behavioral tendencies. If this proposal is true, then subtle reminders of religious concepts should result in higher levels of self-control. In a series of four experiments, we consistently found that when religious themes were made implicitly salient, people exercised greater self-control, which, in turn, augmented their ability to make decisions in a number of behavioral domains that are theoretically relevant to both major religions and humans' evolutionary success. Furthermore, when self-control resources were minimized, making it difficult for people to exercise restraint on future unrelated self-control tasks, we found that implicit reminders of religious concepts refueled people's ability to exercise self-control. Moreover, compared with morality- or death-related concepts, religion had a unique influence on self-control.

Miyamoto, Y., & Ji, L.J. (2011). Power fosters context-independent, analytic cognition. *Personality and Social Psychology Bulletin*, 37(11), 1449-1458

The present research tested the hypothesis that power, defined as the capacity to influence others, promotes analytic cognitive processing, by examining the use of linguistic categories and the categorization of objects. Supporting the hypothesis, recalling instances of influencing others facilitated the use of adjectives and discouraged the use of verbs to describe others (Study 1). Recalling instances of influencing others also promoted taxonomic, instead of thematic, categorization (Study 2). Furthermore, the authors also examined the effect of power in a real-life context. They examined whether socioeconomic status (SES) differences in cognitive processing can be partly explained by sense of agency, an antecedent of power (Study 3); high SES individuals made more taxonomic categorization than did low SES individuals, and a sense of agency partially mediated the SES differences in categorization. These findings underscore the role of power in shaping cognitive processes.

Hsieh, A.Y., Tripp, D., Ji, L.J. (2011). The influence of ethnic concordance and discordance on verbal reports and nonverbal behaviors of pain. *Pain*. 152(9),2016-22

This study's aim was to examine the influence of ethnic concordance on Chinese participants' pain report and nonverbal pain expression in a laboratory setting. Participants

(n=102) were exposed to a cold pressor task under 1 of 2 conditions: Chinese milieu (n=52; participants exposed to Chinese experimenters and language), or European Canadian milieu (n=50; participants exposed to Euro-Canadian experimenters and English language). A reference group with 86 Euro-Canadian participants, exposed to the Euro-Canadian milieu only, was included for comparison. The Chinese groups did not differ on pain intensity during the pain task. However, Chinese participants in the Chinese milieu reported significantly higher affective pain and displayed more nonverbal behaviour of pain than the Chinese participants in the Euro-Canadian milieu. In addition, compared to the Euro-Canadian group, both Chinese groups reported higher pain intensity during the pain task and greater affective pain after immersion. The results demonstrated that an ethnically concordant milieu is associated with increased nonverbal pain displays and affective pain report. These findings suggest that research on ethnic disparities in pain treatment should examine ethnic concordance between observer and individual in pain.

Ji, L.J. (2010). Is Confucian culture forgiving? *Learning and Individual Difference*, 20(6), 569-570.

Stankov (2010) has offered an original and provoking theory to account for higher achievement, anxiety, and self-doubt among Asians. Unfortunately, several empirical and conceptual gaps must be closed before the author can make a convincing argument on the relationship between “unforgiving” Confucian culture and high achievement/test anxiety/self-doubt. The author relies too heavily on a methodology, comparisons using Likert-type response scales, well known to yield artifactual differences between cultures. More importantly, the author has not even clearly established that the scales he uses truly measure an unforgiving nature and that Confucian culture truly is more unforgiving than European culture. Finally even if we ignore the first two problems, the author's argument still is undermined by the number of counterexamples that can be generated to his theory.

Why best cannot last: Cultural differences in predicting regression toward the mean

Roy R. Spina,¹ Li-Jun Ji,² Michael Ross,³ Ye Li⁴ and Zhiyong Zhang⁵

Four studies were conducted to investigate cultural differences in predicting and understanding regression toward the mean. We demonstrated, with tasks in such domains as athletic competition, health and weather, that Chinese are more likely than Canadians to make predictions that are consistent with regression toward the mean. In addition, Chinese are more likely than Canadians to choose a regression-consistent explanation to account for

regression toward the mean. The findings are consistent with cultural differences in lay theories about how people, objects and events develop over time.

Hsieh, A.Y., Tripp, D., Ji, L.J. & Sullivan, M.J.L. (2010) Comparisons of catastrophizing, pain attitudes, and cold pressor pain experience between Chinese and European Canadian young adults. *Journal of Pain*. 11(11), 1187-94.

Experimental pain research indicates ethnic differences in pain experience. Most of the cross-cultural pain research studied African Americans and Hispanics with little data available for Asian groups. This study examined differences in pain catastrophizing, pain attitudes, and pain responses between Chinese and European Canadian young adults. Prior to completing a cold-pressor (CP) task, 80 Chinese and 80 European Canadian undergraduate students were administered measures of pain catastrophizing and pain attitudes, including stoicism and cautiousness. Pain threshold, pain tolerance, and pain intensity were measured during the CP task. The Short Form-McGill Pain Questionnaire was administered immediately postimmersion to measure sensory and affective pain. While there was no group difference in pain threshold and pain intensity, Chinese participants displayed lower pain tolerance and reported higher SF-MPQ-Affective than European Canadians. Regarding psychological variables, there was no difference in stoicism and cautiousness between groups, but Chinese participants reported greater pain catastrophizing. Mediation analysis indicated that pain catastrophizing mediated the group differences in SF-MPQ-Affective score. The implications of the findings and future research were discussed. PERSPECTIVE: The study found ethnic differences in cold-pressor responses, in which Chinese undergraduates reported higher levels of pain compared to their Euro-Canadian counterparts. The finding that pain catastrophizing mediated the ethnic difference in SF-MPQ-Affective scores indicated the importance of examining the role of catastrophizing in pain reports from Chinese and Euro-Canadian patients.

Spina, R., Ji, L.J., Guo, T., Zhang, Z, Li, Y., & Fabrigar, L. (2010) Cultural Differences in the Representativeness Heuristic: Expecting a Correspondence in Magnitude between Cause and Effect. *Personality and Social Psychology Bulletin*. 36(5), 583-597.

Based on previous research on cultural differences in analytic and holistic reasoning, it was hypothesized in these studies that when explaining events, North Americans would be more likely than East Asians to expect causes to correspond in magnitude with those events (i.e., big events stem from big causes and small events stem from small causes). In a series of studies, Canadian and Chinese participants judged the likelihood that high- or low-magnitude events were caused by high- or low-magnitude causes. Overall, Canadians expected events and their causes to correspond in magnitude to a greater degree than did

Chinese. Also, Canadians primed to reason holistically expected less cause—effect magnitude correspondence than did those primed to reason analytically.

Ji, L.J., Lee, A., & Guo, T. (2010) The thinking styles of Chinese people, in Michael Bond (ed.) *The handbook of Chinese Psychology* (2nd edition), Oxford University Press, p155-167.

Although the Chinese people constitute more than a quarter of the world's population, this book is the first to summarize and integrate the wealth of data available (both in Chinese and English) on their psychological functioning. The well-known contributors emphasize prime areas of research, the theoretical models used to integrate these findings, and problems for future investigation. They provide a cross-cultural perspective on the data, covering topics such as socialization, perception, cognition, personality, psychopathology, social behavior, and organization. Full of interesting comparisons, facts, and insights, the work will appeal to psychologists and psychiatrists, cultural anthropologists, sociologists, and anyone interested in Chinese culture.

Yates, F.J., **Ji, L.J.**, Oka, T., Lee, J.W., Shinotsuka, H., & Sieck, W. (2010) Indecisiveness and culture: Incidence, values, and thoroughness. *Journal of Cross-Cultural Psychology*, 41(3), 428-444.

Three studies examined cultural variations in indecisiveness among Chinese, Japanese, and Americans. In Study 1, validated self-report, comprehensive measures of indecisiveness indicated large cultural differences, with Japanese participants exhibiting substantially more indecisiveness than Chinese or Americans. Study 2 provided evidence that such cultural variations correspond to variations in people's positive versus negative values for decisive behaviors, suggesting that such values are plausibly an important means for motivating and sustaining cultural differences in indecisiveness. Study 3 provided direct behavioral instances of the differences in indecisiveness implicated in Studies 1 and 2. It also suggested that thoroughness might be an important cognitive mechanism whereby cultural differences in indecision actually occur, with thoroughness being especially prominent among Japanese decision makers. Suggestions for theory concerning the nature and foundations of indecisiveness and its cultural variations are developed and discussed, along with plausible implications for real-life practical issues, for example, in politics and management.

Ji, L.J., Guo, T., Zhang, Z., & Messervey, D. (2009) Looking into the past: Cultural differences in perception and representation of past information. *Journal of Personality and Social Psychology*, 96(4), 761-769.

The authors investigated cultural differences in the way people perceive and represent temporal information. It was hypothesized that Chinese would attend to the past information more than would Canadians. In Studies 1 and 2, Canadian and Chinese participants read a description of a theft along with a list of behaviors that occurred in the past or present. Chinese participants rated behaviors that had taken place in the remote and recent past as more relevant to solving the case than did Canadians. Study 3 showed that Chinese participants recalled greater detail about past events than did Canadians. Studies 4A and 4B showed that Chinese perceived past events as being closer to the present than did Canadians, suggesting that Chinese had a greater awareness of the past. Overall, Chinese attended to a greater range of past information than did Canadians, which has significant theoretical and practical implications.

Ji, L.J. (2008) The leopard cannot change his spots, or can he: Culture and the development of lay theories of change. *Personality and Social Psychology Bulletin*, 34(5), 613-622.

Chinese and Canadian children were compared to examine cultural and developmental differences in lay theories of change: implicit beliefs about how the world develops and changes over time. Chinese and Canadian children (ages 7, 9, and 11 years) made predictions about future performance, relationships, happiness, and parental incomes based on a series of scenarios. Overall, the Chinese children predicted greater change than did the Canadian children, indicating that they believed more in change than did the Canadians. Moreover, cultural differences increased significantly with age: In comparison with their Canadian counterparts, Chinese children made no more change predictions at age 7, made slightly more change predictions at age 9, and made significantly more change predictions at age 11. This was true for questions starting with an extremely positive or negative state and those starting with a neutral state. Reasons for cultural and developmental differences were discussed.

Ji, L.J., Zhang, Z., & Guo, T. (2008) To buy or to sell: Cultural differences in stock market decisions based on stock price trends. *Journal of Behavioral Decision Making*, 21(4), 399-413.

Four studies compared the stock market decisions of Canadians and Chinese. In two studies using simple stock market trends, compared with Chinese, Canadians were more willing to sell and less willing to buy falling stock. But when the stock price was rising, the opposite occurred: Canadians were more willing to buy and less willing to sell. A third study showed that for complex stock price trends, Canadians were strongly influenced by the most recent price trends: they tended to predict that recent trends would continue and made selling decisions without considering the rest of the trend patterns; whereas the Chinese made reversal predictions for the dominant trends and made decisions that took both recent and early trends into consideration. Study 4 replicated the finding with experienced individual investors. These findings are consistent with the previous literature on different lay theories of change held by Chinese and North Americans.

Ji, L.J. (2005). Culture and lay theories of change. In *Culture and Social Behavior: The Tenth Ontario Symposium*. Edited by Richard M. Sorrentino, Dov Cohen, Jim Olson, Mark Zanna. Hillsdale, NJ: Lawrence Erlbaum, pp. 117 -135.

Cross-cultural differences have many important implications for social identity, social cognition, and interpersonal behavior. The 10th volume of the Ontario Symposia on Personality and Social Psychology focuses on East-West cultural differences and similarities and how this research can be applied to cross-cultural studies in general.

Culture and Social Behavior covers a range of topics from differences in basic cognitive processes to broad level cultural syndromes that pervade social arrangements, laws, and public representations. Leading researchers in the study of culture and psychology describe their work and their current perspective on the important questions facing the field. Pioneers in the field such as Harry Triandis and Michael Bond present their work, along with those who represent some newer approaches to the study of culture. Richard E. Nisbett concludes the book by discussing the historical development of the field and an examination of which aspects of culture are universal and which are culture-specific. By illustrating both the diversity and vitality of research on the psychology of culture and social behavior, the editors hope this volume will stimulate further research from psychologists of many cultural traditions.

Understanding cultural differences is now more important than ever due to their potential to spark conflict, violence, and aggression. As such, this volume is a "must have" for cultural researchers including those in social, cultural, and personality

psychology, and interpersonal, cultural, and political communication, anthropology, and sociology.

Ji, L.J., Zhang, Z., & Nisbett, R.E. (2004) Is it Culture, or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87(1), 57-65.

Differences in reasoning styles between Chinese and European Americans held even when controlling for the language of testing. Bilingual Chinese organized objects in a more relational and less categorical way than European Americans, whether tested in English or in Chinese. Thus, culture affects categorization independent of the testing language. Nevertheless, language affected some Chinese bilinguals' categorization. The responses of Chinese from the Mainland and Taiwan were more relational when tested in Chinese than when tested in English. Responses of Chinese from Hong Kong and Singapore were equally relational when tested in Chinese and in English. Age and context of learning English are discussed to explain the differential language effects among different Chinese groups. Theoretical and methodological implications are discussed.

Ji, L.J., Zhang, Z., Osborne, E., & Guan, Y. (2004). Optimism across cultures: In response to the SARS outbreak. *Asian Journal of Social Psychology*, 7(1), 25-34.

Based on our early research, we predicted that the Chinese may be more optimistic and less pessimistic than North Americans in response to negative life events. A survey was conducted to investigate optimism cross culturally in the context of the severe acute respiratory syndrome (SARS) outbreaks in Canada and China. Chinese students in Beijing and European Canadians in Toronto answered questions about their perceptions of SARS. No significant cultural difference was found on dispositional optimism, as measured by the Revised Life Orientation Test (LOT-R). Unrealistic optimism was measured in the context of SARS. Both groups demonstrated unrealistic optimism (i.e. reporting that the self was less likely than an average person to get infected with SARS). Such optimistic bias was stronger among Chinese than among Canadians. Compared to the actual infection rates in Beijing and Toronto, both Chinese and Canadian participants overestimated their own chances of getting infected, indicating that they were being pessimistic. Indeed, Chinese were less

pessimistic than Canadians. In addition, even though the Chinese reported more inconvenience brought by SARS than did Canadians, they also reported more positive changes brought by SARS, reflecting the Chinese dialectical views of events. Implications for research on optimism in context are discussed.

Haberstroh, S., Oyserman, D., Schwarz, N., Kuhnen, U., & Ji, L.J. (2002) Is the interdependent self more sensitive to question context than the independent self? Self-construal and the observation of conversational norms. *Journal of Experimental Social Psychology*, 38, 323-329.

Question answering requires close attention to the common ground to determine what the questioner wants to know. Because attentiveness to others is more likely to be a self-defining goal when the self is thought of as interdependent with others rather than independent of others, we predicted that self-construal influences attentiveness to the common ground. In Experiment 1, participants' temporary self-construal was manipulated through a priming technique. As predicted, interdependence-primed participants were more likely than independence-primed participants to take the recipient's knowledge into account and avoided providing redundant information in a self-administered questionnaire. Drawing on chronic differences in self-construal, Experiment 2 replicated these findings with participants from independent (Germany) and interdependent (China) cultures. Throughout, participants' differential attentiveness to the common ground resulted in differential question order effects, raising important methodological issues for cross-cultural research.

Hedden, T., Park, D., Nisbett, R.E., Ji, L.J., Jing, Q., & Jiao, S. (2002) Cultural variation in verbal versus spatial neuropsychological function across the lifespan. *Neuropsychology*, 16, 65-73.

Established culture-invariant measures are needed for cross-cultural assessment of verbal and visuospatial speed of processing and working memory across the life span. In this study, 32 younger and 32 older adults from China and from the United States were administered numerically based and spatially based measures of speed of processing and working memory. Chinese superiority on the numerically based tasks was found for younger adults. Age and increasing task demands diminished this cultural effect, as predicted by the framework proposed by D. C. Park, R. Nisbett, and T. Hedden (1999). However, the visuospatial measures of both working memory and speed of processing did not differ cross-culturally for either age group. The authors concluded that these visuospatial measures provide culture-invariant estimates of cognitive processes in East Asian and

Western cultures, but that numerically based tasks show evidence of cultural and linguistic biases in performance levels.

Ji, L.J., Nisbett, R.E., & Su, Y. (2001) Culture, change, and prediction. *Psychological Science*, 12 (6), 450-456. [Also available at <http://www.psychologicalscience.org/journals/ps/index.html>]

Five studies showed that Chinese and Americans perceive change differently. Chinese anticipated more changes from an initial state than Americans did. When events were changing in a particular direction, Chinese were more likely than Americans to predict change in the direction of change. Moreover, for patterns with changing slopes, Chinese predicted greater change in the way slopes changed, in comparison to Americans. In addition, people who predicted change were perceived as wise by Chinese more than by Americans. Implications for social attribution, tolerance for contradiction, persistence on tasks, and the illusion of control are discussed.

Ji, L.J., Peng, K., & Nisbett, R.E. (2000) Culture, control and perception of relationships in the environment. *Journal of Personality and Social Psychology*, Vol. 78 (5), 943-955.

East Asian cognition has been held to be relatively “holistic”, that is, attention is paid to the field as a whole. Western cognition, in contrast, has been held to be object-focused and control-oriented. We compared East Asians (mostly Chinese) and Americans on detection of covariation and field dependence. The results showed that (1) Chinese participants reported stronger association between events, were more responsive to differences in covariation, and were more confident about their covariation judgments; (2) These cultural differences disappeared when participants believed they had some control over the covariation judgment task; (3) American participants made fewer mistakes on the Rod-and-Frame test, indicating that they were less field dependent; (4) American performance and confidence, but not that of Asians, increased when participants were given manual control of the test. Possible origins of the perceptual differences are discussed.

Ji, L.J., Schwarz, N., & Nisbett, R. E. (2000) Culture, autobiographical memory, and social comparison: Measurement issues in cross-cultural studies. *Personality and Social Psychology Bulletin*, Vol. 26 (5), 586-594.

Chinese and American respondents were equally likely to rely on response scales as a frame of reference in estimating the frequencies of unobservable behaviors, for which people have little episodic knowledge. Moreover, both drew on information extracted from the scales in making comparative judgments involving the self. Chinese respondents, however, were less influenced by the response alternatives than were Americans for observable behaviors, both in their behavioral reports and comparative judgments. The authors suggest that this occurred because members of collectivist societies attend closely to their own and others' behaviors to ensure smooth social functioning, resulting in memories for behaviors that Americans can only estimate.