# Culture and Judgment and Decision Making

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## I. Introduction

The fact that many of our judgments and choices are constructed when we are asked for them, rather than simply being recalled, is perhaps the most important insight of judgment and decision research over the past 30 years (Lichtenstein & Slovic, 2006; E.U. Weber & Johnson, 2009). Attempts to better understand such on-line construction have focused attention on the situational features that should not (but do) affect judgments and choice, from the way information is presented or framed, to the way judgments or preferences are asked to be expressed. This may have had the unintended result of putting more emphasis on the power of the situation than of the person, and individual differences and, by extension, cultural differences in judgment and choice may have gotten short shrift. A review of culture and individual decision making by Weber and Hsee (2000) found that only about 0.5% of the over 1,200 articles in the two main decision making journals *Organizational Behavior and Human Decision Processes* and the *Journal of Behavioral Decision Making* published between 2000 and the origin of these journals in the 1970s and 80s addressed cultural determinants or differences.

The effects of culture on judgment and choice are of theoretical interest to researchers who allow for the influence of social construction on task performance. Whereas economists, statisticians, and management scientists with their more positivist orientation can be expected to be more interested in the universal elements of judgment and choice processes, psychologists, anthropologists, and sociologists with their expertise in social construction can be expected to be more interested in the role of culture. Such researchers explain, for example, differences in the perceptions of risk with reference to culture, which provides an "orienting disposition" (Dake, 1991) or a "collective programming of the mind" (Hofstede, 1984).

More generally, cultures are traditions of thought and behavior that are (imperfectly) shared

across the members of a community and transmitted in time across generations (Shweder & LeVine, 1984). Initial research on culture and decision making primarily documented cross-national differences in judgments or choice, with comparisons of samples in Western versus East Asian countries producing particularly robust patterns of differences, both in social domains such as the bias toward dispositional attributions for behavior (Norenzayan, Choi, & Peng, 2006) and economic domains such as risky choice (Weber & Hsee, 2000).

Subsequently, studies of the influence of culture on decision making evolved from the early descriptive emphasis toward one of model testing (Weber & Hsee, 1999). The dominant paradigm traced cultural differences in judgment or choice tendencies to people's value orientations (e.g., collectivism vs. individualism; Triandis, 2006) or to related self-conceptions (e.g., interdependent vs. independent self-construal; Kitayama, Duffy, & Uchida, 2006). Much like the modal personality arguments of mid-century anthropology, these arguments suggested that socialization into Western versus Eastern cultures engenders fundamentally different value and self-dispositions and that these ever-present internal traits give rise to chronic differences in judgment and choice tendencies. Researchers sought to show that individual-level measures of cultural traits would mediate effects of cultural group variables such as nationality in accounting for differences in judgment and choice patterns (Nisbett, 2003).

Recent years have seen yet another turn in theorizing on mechanisms for cultural patterns, based on several empirical patterns that challenge the dominant trait paradigm. First, meta-analyses of cross-national comparisons of cultural trait measures have not showed strong support that they mediate country differences in JDM biases or even that they vary across countries as hypothesized (REF?). Second, studies have highlighted the variability of cultural biases across contexts and the malleability of these biases as a function of situational priming (Oyserman & Lee, 2006).

Increasingly, cultural researchers conceptualize the psychological antecedent of cultural biases as dynamically activated schemas or procedures rather than static traits (). Given that people rely on schematic knowledge to construct their answers more under some conditions than others, this account can explain why cultural differences appear more under some conditions than others. On this view, American - Chinese differences in judgment and choice tendencies do not reflect fixed, essentialist mentalities but rather differences in the interpretive lenses most likely to be activated for the problem. By focusing attention on the importance of chronic as well as transient contextual perception and interpretation, research on the influence of culture on judgment and choice can thus help us reach a better understanding of a much wider range of preference construction processes. Whereas cognitive psychologists have recently started to look at the role of memory processes in preference construction (Johnson, Haubl, & Keinan, 2007; E. U. Weber et al., 2007), including both long-term and short-term activation of knowledge structures (see Weber & Johnson, 2006, for a review), the role of social psychological constructs such as social and cultural norms deserves more attention. In analogy or parallel to Gibson's (1979) notion of affordances as the action possibilities provided and promoted by the physical world, Kitayama and colleagues have defined cultural affordances as the potential of cultural environments to evoke different sets of cognitive, emotional, and motivational responses (e.g., Kitayama et al., 2006). In this sense, priming as a technique has the potential to provide an experimental analogue of the effects of culture, by transiently doing what culture is assumed to do chronically, namely to increase activation and access to culture-relevant content and mind set (Oyserman & Lee, 2006). This offers multiple additional entry points for culture, from influencing the focus of attention (broad vs. narrow, peripheral vs. centrally focused) which is guided, presumably, by differences in goals, to different features of the situation, to different experiences of judgment or choice outcomes which translate into differences in anticipated

utility, and finally to the use of different classes of evidence or processes in the acquisition of evidence.

The dynamic constructivist view naturally raises the question of why different perceptions (or "lenses") are activated in people's minds as a function of culture. What is it about the everyday social environments in a given culture that influences the chronic accessibility of particular schemas and procedures and their attendant ways of influencing judgments and choices? Observed biases of this sort have been traced to cultural differences in the social networks individuals occupy, the types of interpersonal situations they most frequently encounter, the publicly represented themes and symbols to which they are continually exposed, the discourses surrounding them, and the institutions in which they participate. Other research has identified more distal factors that shape cultural environments over the course of history, such as the legacies of pastoral versus agrarian economies, histories of voluntary settlement, and rates of residential mobility. In sum, a dynamic constructivist view of cultural differences in psychology entails that an account of the carriers of culture must substantially reference aspects of the ongoing social environments that cultures present to individuals.

In this paper we trace this evolution in several areas of judgment and decision making and examine the questions that it raises and predictions it makes (including about the speed of and processes of acculturation). We first review the literature on social judgments including attribution and then the literature on economic choice. We show that several unresolved issues remain for this account, such as which cultural response patterns in judgments and choice can be absorbed quickly by sojourners in a culture as opposed to requiring deep socialization into the culture. Our review will also cover the advent of new tools, including neuroscience methods that provide new evidence for process accounts, which have had already found some use in cultural research. Also, web-based

survey methodology that facilitates cross-cultural data collection.

## Social Judgments

### Attribution / Responsibility

Hamilton & Sanders – distribution of relationships differs across societies

Morris Podolny Sullivan – networks differ\

Chua Morris Ingram – networks that give rise to particular forms of trust differ

Zou et al -- the psychological mechanism for conformity to culturally traditional pattens of judgment is outward-looking perceived consensus, not inward-looking self-conceptions

### Attention

Kitayama – A and J have different competences

-- Sojourners implicitly acquire the competency of the host culture

Oyserman -- Self-priming affects nonsocial judgments

## Economic Judgments and Decisions

### Risky Choice—Risk Perceptions

In their landmark study of the relationship between risk and culture, Douglas and Wildavsky

(1982) provide convincing evidence that group conflicts over risk are best understood in terms of plural social constructions of meaning, and that competing cultures confer different meanings on situations, events, objects, and relationships. In this cultural theory (Thompson, Ellis, & Wildavsky, 1990), the perception of risk is a collective phenomenon by which a culture selects some risks for attention and chooses to ignore others. Cultural differences in risk perceptions are explained in terms of their contribution to maintaining a particular way of life, thus providing a way to incorporating group and culture level explanations into the behavior of individuals. Dake (1991) identified five cultural patterns of interpersonal relationships (hierarchical, individualist, egalitarian, fatalist, and hermitic), and other classifications have been proposed (e.g., Fiske, 1992; see Kitayama et al., 2006, for a review). Regardless of the details, differences in chronic patterns of interrelations are assumed to result in differences in groups' perceptions of risk. Hierarchically arranged groups tend to perceive industrial and technological risks as opportunities, whereas more egalitarian groups tend to perceive them as threats to their social structure (Douglas, 1985).

Despite its origins as a statistical variable in normative models of judgments and choice that assume that risk perception ought to reflect a relevant probability or the variance of possible outcomes, there is growing consensus that risk perception ought to be modeled as a psychological variable with possible individual and cultural differences. Luce and Weber (1986) derived a model of risk perception, called conjoint expected risk (CER), that models the perceived risk of some risky choice option as a linear combination of the probability of breaking even, the probability of a gain, the probability of a loss, the conditional expectations of power-function transformed gains, and the conditional expectation of power-function transformed losses. The CER model captures both *similarities* in people's risk judgments, by a common functional form by which probabilities and outcomes of risky options is combined, and *individual and group differences,* by model parameters

that reflect the relative attention and thus weight given to different components. Bontempo, Bottom, and Weber (1997), when fitting the CER model to financial risk judgments of business students and security analysts in Hong Kong, Taiwan, the Netherlands, and the U.S., found differences in model parameters that followed a Chinese–Western division. The probability of a loss had a larger effect on perceived risk for the two Western samples, and the magnitude of losses had a larger effect on the risk perceptions for the two Chinese samples.

The psychometric paradigm (e.g., Slovic, Fischhoff, & Lichtenstein, 1986) treats risk perception as a multidimensional construct that is often unrelated to possible outcomes and their probabilities. Laypeople's perceptions of risk are systematically biased (compared to experts) in the way they overweight risk associated with infrequent, catastrophic, and involuntary events, and underweight the risk associated with frequent, familiar, and voluntary events. A study that pitted the objective dimensions of the CER model against the psychological risk dimensions of the psychometric model to account for the risk judgments of MBA students for financial investment options (Holtgrave & Weber, 1993) found that both models had unique predictive power, suggesting that even the evaluation of the risk of financial investment options has a subjective (socially constructed and partly affective) component (Loewenstein, Weber, Hsee, & Welch, 1999) that is not captured by the "objective" components of the CER models. While some cultural differences in risk perception for technological hazards have been found, respondents from different countries or cultures seem to share the same factor structure, i.e., are responsive to variables related to *dread* and *risk of the unknown* (see Weber & Hsee, 2000, for a review). Differences in where cultures placed a particular hazard (e.g., nuclear power) *within* this factor space are interpretable given their specific national exposures and socio-economic concerns.

Slovic (1997) suggests that cultural differences in trust in institutions and their ability to

protect their citizens may lay at the root of differences in perceived risk, not unlike Douglas and Wildavsky's (1982) cultural theory, which also depicts risk as the other side of trust and confidence, as the result of the way in which risk perception is seen as imbedded in social relations. In an attempt to connect cultural theory with judgments of risk, Palmer (1996) found that the financial risk judgments of a multiethnic sample of respondents in Southern California with different worldviews (Dake, 1991) were described by different components of the CER model. Whereas hierarchists (who are comfortable with determining acceptable levels of risk for technologies, a process that explicitly considers and weighs gains and losses) provided risk judgments that reflected all predictor variables of the CER model (gains as well as losses, outcome levels as well as probabilities), egalitarians (who are suspicious of technologies and view nature as fragile and in need of protection, which suggests that they should see risk in terms of possible harm) provided risk judgments that reflected only the loss/harm predictor variables of the CER model (expected loss and the probability of loss or status quo), and individualists (who view risk as opportunity, given their tendency to see benefits from most activities as long as they don't interfere with market mechanisms) provided the lowest risk judgments for almost all of the risky investments and activities.

**Risky Choice—Risk Preference**

Risk preference has traditionally been modeled within the expected utility framework, inferring risk-aversion or risk-seeking from the shape of the utility function inferred from a set of choices (E. U. Weber & Johnson, 2008). However, alternative formalizations exist, including the risk–return framework (Weber & Milliman, 1995), developed by Markowitz (1959) within finance and adapted by Coombs (1975) to psychology. Within this framework, risk preference (for example, in the form of willingness to pay (WTP) for a risky option X ) is seen as a compromise between the

option's return and its risk: $WTP(X) = Return(X) - bRisk(X)$, or as a tradeoff between greed (return) and fear (risk). Risk--return models in finance equate "return" with the expected value of option X and "risk" with its variance and assume that decision makers seek to minimize the risk of a portfolio for a given level of expected return. Psychophysical risk—return models make risk and return psychological (rather than statistical) variables that can vary as a function of individual or cultural differences and situational context (E. U. Weber & Johnson, 2008), as discussed in the last section. Weber and Hsee (1998) asked American, German, Polish, and Chinese respondents for their willingness-to-pay for a set of financial investment options and for their perception of the riskiness of these options, and found both of these variables to differ cross-nationally. Of the four nationalities, Chinese reported the risks to be the lowest and paid the highest prices; the opposite was true for Americans. Cross-national differences in choice were completely accounted for by systematic differences in risk perception. In a regression model of willingness-to-pay on expected return and perceived risk, the risk--value tradeoff coefficient b (i.e., people's attitude towards perceived risk) did not differ as a function of nationality.

Weber and Hsee (1998) proposed the *cushion hypothesis* to account for the observed differences in perceived riskiness of investment options and the resulting differences in choice. According to this hypothesis, members of socially collectivist cultures, such as the Chinese, can afford to take greater financial risks because their social networks insure them against catastrophic outcomes. The social network serves as a "cushion" that protects its members when they take a risk and "fall." Since the cushion hypothesis predicts that cross-cultural differences in risk preferences are mediated by differences in social networks, Hsee and Weber (1999) measured the size and quality of American and Chinese respondents' social network. As expected, the Chinese had a larger social network of family and friends who could and would render them help. Moreover, in a

regression model that tested the effect of a respondent's nationality on risk preferences, the nationality variable, which was originally a significant predictor of risk preference, became insignificant once the social network information was added to the model (Hsee & Weber, 1999), suggesting that social networks indeed mediate the relationship between culture and risk taking. The cushion hypothesis also predicts that cross-cultural differences in risk-preference should be restricted to outcomes that can be transferred between members of a network, such as monetary outcomes. Consistent with this prediction, Hsee and Weber (1999) who assessed Chinese's and Americans' risky choices in three risky choice domains (financial, academic and medical) found the Chinese to be significantly more risk-seeking than the Americans only in the financial decisions.

Weber, Hsee, and Sokolowska (1998) compared the content of Chinese and American proverbs, using ratings by both Chinese and American evaluators, to gain further insight into the sources of cross-cultural differences in risk taking, in particular whether observed differences in behavior reflect long-standing differences in cultural values or differences in the current socio-economic or political situation. Regardless of the nationality of the raters, Chinese proverbs (which have been accumulated over many centuries) were judged to provide greater risk-taking advice than American proverbs, suggesting that observed differences in risk-taking stem, at least in part, from long-standing differences in advocated cultural norms. Furthermore Chinese raters perceived both Chinese and American proverbs to advocate greater risk-taking than did American raters, but only for the domain of financial risks and not for the domain of social risks. Longstanding cultural differences in social connectedness predict the direction of the observed differential attitude of Chinese raters to social and financial risk, since collective financial (or material) risk insurance requires that social networks will be maintained and social risks avoided. A related result was that American proverbs were systematically judged to be more applicable to financial-risk decisions

than to social-risk decisions, whereas Chinese proverbs were much closer to equally applicable to the two domains. The proverbs produced by these two cultures over time reflect the fact that social concerns rate equal to financial or materialistic concerns in collectivist cultures, but are of smaller importance in individualist cultures.

**Intertemporal Choice**

Delay discounting, i.e., the way and extent to which a reward decreases in subjective value when it is received not immediately, but only after a specified time delay, has seen an explosion of interest among decision researchers, but is a relatively recent topic of cross-cultural comparison. Wanjiang, Green, and Myerson (2002) express surprise at the absence of cultural comparisons of intertemporal choice, i.e., choices between options that differ in both the magnitude of outcomes and their time of delivery, given how prevalent and important such choices are in everyday life, from retirement savings decisions to dietary and health decisions, and the fact that cultures have been shown to differ in their both their perception of time and attitudes towards time (Gell, 1992; Helfrich, 1996). One can speculate that researchers assume (at least implicitly) that the drivers of delay discounting are mostly biological and thus (more) universal across cultures. The basic form of the discount function over time, a hyperbolic which models steep discounting for initial delays and much more moderate discounting for subsequent and longer delays, seems to model not just human choices but those of a wide range of other species, including birds (Green & Myerson, 2004). A study conducted in Japan on the effect of nicotine consumption on delay discounting (Ohmura, Takahashi, & Kitamura, 2005) does not even acknowledge the cultural origin of its respondents, but simply reports that nicotine intake per day predicted the discounting of delayed rewards, but not delayed losses nor uncertain gains or losses. There are, however, sizable age effects on delay

discounting (Read & Read, 2004) and many other contextual features play a role. Thus people discount delayed gains more than delayed losses, larger outcomes less than smaller outcomes (Frederick, Loewenstein, & O'Donoghue, 2002), health outcomes more than monetary or environmental outcomes (Hardisty & Weber, 2009), and discount less in decisions to accelerate consumption than in decisions to delay consumption (E. U. Weber et al., 2007). Given this evidence that intertemporal choices are also constructed, and that choice content and context influences the process of arriving at a decision, it is not surprising that cultural differences have also been found when researchers looked for them. Wanjiang et al. (2002) compared American, Chinese, and Japanese graduate students (all studying in the USA) in both a delay discounting task (intertemporal choice) and a probability discounting task (risky choice), in part to examine cultural differences, in part to examine whether similar/same or different processes underlie the two tasks. For the risky decisions, Wanjiang et al. (2002) replicated the results of Weber and Hsee (1998) described above, finding that the Chinese were significantly less risk averse than the Americans and Japanese. For the intertemporal choices, a hyperbolic discount function described the choices of all three groups, but Americans and Chinese discounted delayed rewards more than the Japanese. No evidence testing between alternative theoretical explanation of the observed country differences in delay discounting (e.g., differences in the perceptions of or attitudes towards time delays) was provided, though the results suggest a need for multiple culturally mediated mechanisms in economic decisions. Given that Chinese and American students in this study made different risky decisions but very similar intertemporal choices, it is unlikely that implicit social network insurance (Weber & Hsee's *cushion hypothesis*) cushions against longer delays as it does against catastrophic losses, and thus an alternative mechanism would need to be invoked to explain the lower discounting observed for Japanese students in this study. A follow-up study by Takahashi et al.

(2009) that compared time discounting by American students in the USA and Japanese students at two Japanese universities replicated Wanjiang et al.'s (2002) results of steeper discounting among the Americans, but also demonstrated greater dynamic time inconsistency among the Americans, which the authors trace back to the Western and Eastern differences in analytic vs. holistic thinking styles, discussed above. In particular, the narrower focus of attention of Westerners, in a temporal context, can be shown to give rise to both greater discounting (because more distant time periods are less in focus) and greater dynamic inconsistency (because different time periods are in more differential focus in different choices) than the broader attentional focus of Easterners. This explanation, however, fails to account for the Japanese—Chinese differences in temporal discounting reported by Wanjiang et al. (2002).

**Other Choice Phenomena**

**Overconfidence.** While technically a judgment phenomenon, excess confidence in the accuracy of one's knowledge has been shown to contribute to many economic-choice related puzzles, from excess trading in financial markets (Odean) to the high failure rate of new businesses (). Confidence judgments are calibrated, as a group, to the extent that, over the long run, the proportion that events actually occur corresponds to the probability assigned to them. Yet, both in the United States and elsewhere, people provide confidence judgments for events that are more extreme than the events' long-run relative frequency of occurrence warrants. As reviewed by Weber and Hsee (2000), Yates and colleagues have provided evidence of cross-national variations in the degree of overconfidence (Yates, Zhu, Ronis, Wang, Shinotsuka, & Toda, 1989), with greater overconfidence (worse calibration) on the part of Asian respondents, except for Japanese who are

better calibrated than Americans and Europeans. Yates, Lee, and Bush (1997) tested whether differences in response-scale usage were the cause of cross-national differences in overconfidence, comparing directly reported confidence judgments with those inferred from decisions made by American and Chinese respondents about wagers in which they could earn actual, material goods. The results for respondents of both cultures showed convincingly that overconfidence and cross-national variations in overconfidence are indeed "real," consequential phenomena, and not just a response-scale or data-analytic artifact (Erev et al. 1999).

The fact that Japanese deviate from other Asian cultures (Yates et al., 1989) and the fact that Turkish respondents show the same level of overconfidence as respondents from Asian countries (Whitcomb et al., 1995) have been interpreted as evidence for the influence of socio-economic conditions (e.g., level of technological development, which might correlate with quantitative sophistication), rather than cultural differences per-se. On the other hand, some truly cultural differences have also been suggested. In particular, the social orientation of Chinese (where individuals remain integral parts of their families throughout their lives (Yang, 1981)) and their more authoritarian socialization and upbringing relative to Americans (Hossain, 1986) have been shown to be associated with less differentiated cognitive functioning (Witkin, Goodenough, & Oltman, 1979), which in turn has been shown to result in worse calibration (Wright & Phillips, 1980). Yates et al. (1992) provided an explanation for cross-national differences in overconfidence by differences in cultural traditions in education. The Chinese education system is described as encouraging students to follow traditions and precedents rather than to criticize them, partly because the Chinese have enjoyed many great achievements in their long civilization and believe that what has worked in the past must be good and should be followed. As a result, Chinese are not accustomed to think critically -- not only of past traditions, but also of their own day-to-day

judgments. People from many other cultures, particularly Americans, are trained to be "contentious" from a very early age, a thinking style that reduces their tendency to be overconfident. Yates, Lee, and Shinotsuka (1996) prompted American, Japanese, and Chinese respondents to generate reasons that argued either for or against the correctness of their answers to general knowledge questions. For the Japanese and American sample, 48% and 41% (respectively) of all generated reasons were reasons that critically argued *against* respondents' answers. This was only true for 24% of all reasons for the Chinese sample.

**Decision Modes.** Cross-cultural decision research has also examined differences in the processes by which members of different cultures arrive at decisions. A term coined by Yates and Lee (1996), *decision mode* refers to the different strategies for arriving at decisions, with a frequent distinction between analytic strategies and intuitive or holistic strategies (Hammond, 1996; (Kahneman, 2003)). Decision makers' culture or subculture may affect their selection of decision mode either as a main effect or as an interaction with decision domain or context, which may be interpreted in different ways by members of different cultures.

Main effects of culture on the frequency of decision mode usage may be the result of cultural differences in cognitive style, related to goals and cultural norms. The analytic decomposition of choices into outcomes and probabilities and the systematic assessment of degrees of certainty appear to be the product of Western rationalistic-normative practices, and quite rare in the PRC for even large infrastructure decisions like a water pollution control system for the Huangpu River (Pollock & Chen, 1986). While the rational-economic view of human nature assumes that people attend only to the material consequences of their choices, psychological research confirms the existence of needs for affiliation and autonomy (Hilgard, 1987), confidence and self-esteem (Larrick, 1993), fairness and justice (Mellers & Baron, 1993) and the justifiability of decisions

(Tetlock, 1992). Philosophers also provide multifaceted views of human motivation. Habermas' (1972) taxonomy suggests three complementary types of motives: technical concern with instrumental action; practical concern with social consensus and understanding; and emancipatory concern with self-critical reflection and autonomy.

The specific goals activated in a particular situation vary as a function of the decision-maker (personality, culture) and the content (domain) of the decision (Weber & Lindemann, 2007). Different decision modes coexist because they are more or less effective ways to achieve different goals. While calculation-based modes are best suited to addressing the traditional motive of maximizing material consequences, other modes are better suited to other goals. Justify one's decision is furthered by making the decision in a rule-based fashion (e.g., following standard-operating-procedure). Role-based decisions (i.e., where the rule that is instantiated in the decision follows from one's social role, e.g., the role of a parent or the professional identity of a doctor) serve to satisfy affiliative needs, because they activate representations of the decision maker's place in society, in some cultures also enhancing self-confidence and self-esteem (Markus & Kitayama, 1991). A need for autonomy is best met by using an affect-based decision mode, which affirms that one's personal desire for an action suffices, without any need to justify the decision to anyone. Rule- and role-based decision making may also function as mechanisms for assuring fairness. Rules, like the categorical imperative, can promote fairness because they dictate appropriate behavior in an impartial manner.

Reported decision-mode use follows clear and consistent patterns that are guided by both abstract decision characteristics (importance and familiarity), the domain of the decision (financial vs. social), and social norms (Ames, Flynn, & Weber, 2004). Consistent with the idea of cultural affordances, cultural differences in the chronic accessibility of different goals are associated with

differences in the use of decision modes best equipped to attain those goals. In a content analysis of major decisions described in American and Chinese 20th century novels, Weber, Ames, and Blais (2005) showed that decision makers in the socially-collectivist culture (China) with its emphasis on affiliation and conformity were more likely to make role- and rule-based decisions, while decision makers in the individualist culture (United States) with its emphasis on autonomy and reason were more likely to make affect-based and analysis-based decisions.

Preference for variety

Kim & Markus – Asians have lower need for uniqueness, less independent self.

Yamagishi – E. Asians are responding to institutionalized sanctioning systems that push deviants and reward conformists.

Deference in choice

Savani et al deference to pcvd expectations of significant others when SOs are primed

Savani et al -- different ecologies of influence situations in India vs the US

Undoubtedly the most commonly-used dimension to explain cross-cultural differences in behavior is that of individualism/collectivism. Measured in a variety of ways (e.g., Hofstede, 1984; Schwartz, 1992; Triandis, 1989), cultural differences on the individualism/collectivism continuum

have been used to explain differences in risk preference (Hsee & Weber, 1997, 1999), career preferences (Jaccard & Wen, 1986), causal attributions (McGill, 1995), social responsibility (Keltikangas-Jarvinen & Terav, 1996), preferred ways of coping with difficult decisions (Gaenslen, 1986; Radford, Mann, Ohta, & Nakane, 1993), decision goals and methods of risk adjustment (Tse, Lee, Vertinsky, & Wehrung, 1988), and judgments of own and others' performances (Chen, Brockner, & Katz, 1998)

Related to the importance that a culture attributes to individualist vs. collectivist values and behavior is the quality of its social networks. Ruan et al. (1997), Freeman and Ruan (1997), and Hsee and Weber (1999) recently compared the size and nature of social networks of students in the United States, the People's Republic of China, and a range of other Western countries. Results generally support the cushion hypothesis; that is, people's social networks are larger in more collectivist countries than in individualist countries. Ruan and collaborators found, furthermore, that the roles played by different types of relationships (e.g., relationships with parents vs. with coworkers) were fairly similar in all Western countries, but different in the PRC, where coworkers played a significantly larger role than in any other country.

The effects of other cultural differences in beliefs and value orientation on behavior have been less studied. Betancourt, Hardin, and Manzi (1992) examined the influence of a different belief dichotomy (perceived controllability of nature vs. fatalistic subjugation to nature, on which Kluckhohn and Strodtbeck (1961) identified cross-cultural variation) on causal attributions. In particular, Betancourt et al. found that actors in a vignette who experienced a success were evaluated more positively by control-oriented respondents than by subjugation-oriented respondents, but that the opposite was true for actors who experienced a failure. Explorations of the implications of cross-cultural differences on the mastery-over-nature vs. harmony-with-nature

variable as well as other variables (e.g., uncertainty avoidance (Hofstede, 1984)) are an important next step in the area of judgment and decision making. Environmental implications!

## Conclusion

### Some Concluding Questions

1) Insights about cultural change

The constructivist view of culture suggests more ways to change behaviors

Priming

Norm cascades…

2) Why is culture interesting?

Not just modal personality. System that reproduces itself.

**3) Insight from neural measures**

While mostly a story about sociological turn, another development looking at proximal psychological processes using neural imaging methods.

Hadden et al 2008: frontal/parietal control greatest for culturally nonpreferred judgments

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