Psychological Bulletin
1999, Vol. 125, No. 1, 47–63

0033-2909/99/$3.00

Causal Attribution Across Cultures: Variation and Universality

Incheol Choi, Richard E. Nisbett, and Ara Norenzayan
University of Michigan

Growing cross-cultural evidence suggests that East Asians are less likely to show the correspondence bias, or a preference for explanations of behavior in terms of traits, dispositions, or other internal attributes of the target. The scope of this evidence spans several research paradigms and diverse methodologies. The cultural difference, however, appears not to be caused by an absence of dispositional thinking in East Asian cultures. Indeed, extensive ethnographic and psychological data indicate that "dispositionism" is a cross-culturally widespread mode of thinking, although East Asians believe dispositions to be more malleable and have a more holistic conception of the person as being situated in a broad social context. The East–West split in attribution thus originates primarily from a stronger "situationism" or belief in the importance of the context of behavior in East Asia. Consequently, East Asians are more likely than Westerners to avoid the correspondence bias as long as situational constraints are salient.

One of the greatest and most remarkable misunderstandings we have about people, one that gives rise to many other inferential failings, is the belief that behavior is usually best regarded as reflecting personality traits or other internal attributes. This "lay dispositionism" (Ross & Nisbett, 1991) lies behind the so-called correspondence bias (Gilbert & Malone, 1995), or the preference for explanations of behavior in terms of internal attributes of the target. The correspondence bias sometimes results in the fundamental attribution error (FAE; Ross, 1977), or the tendency to overassign causality to traits and underassign it to situations. The FAE may be said to occur when people infer a disposition corresponding to behavior under conditions in which the true cause lies in the situational context or when the reasoning process leading to the dispositional inference can be shown to be flawed in such a way as to produce dispositional inferences erroneously (see Jones, 1979, and Gilbert & Malone, 1995, for extensive reviews). For example, college students infer, after reading an essay praising Fidel Castro, that the essayist truly likes Fidel Castro, even when they know that the target person was assigned to write a pro-Castro essay by a debate coach or an instructor in a course (Jones & Harris, 1967). People attribute volunteering to a disposition when monetary compensation was the true cause (Nisbett, Caputo, Legant, & Maracek, 1973), and they ignore role determinants of behavior in favor of dispositional inferences (Humphrey, 1985; Ross, Amabile, & Steinmetz, 1977). Such a lack of acknowledgment of the situational constraints and the resulting correspondent inferences do not disappear even when people themselves impose the constraints on others (Gilbert & Jones, 1986). A quiet, cold, and stern boss does not realize that her employee does not talk much in front of her simply because of her presence, not because the employee is shy.

Lay dispositionism (i.e., the belief that behavior results from dispositions) also produces mistaken beliefs about the consistency of individual differences (Kunda & Nisbett, 1986). Predictions from one situation presumed to tap a given trait to another situation presumed to tap the trait almost never exceed a correlation of .10. Yet people believe that they can do far better than this. When asked how well they could predict behavior in one situation from behavior in another situation that seemingly taps the same trait, people report that they could do so with accuracy corresponding to a correlation of about .70.

In addition, dispositionism drives people to make overly confident predictions about others and even themselves with little allowance for the uncertainty of pertinent situational details (Dunning, Griffin, Milojkovic, & Ross, 1990; Nisbett & Borgida, 1975; Vallone, Griffin, Lin, & Ross, 1990), sometimes resulting in "the planning fallacy" or the tendency to underestimate the number of situational constraints and their power to subvert the strongest of intentions (Buehler, Griffin, & Ross, 1994). People frequently underestimate their task completion times because they tend to ask "what will I do?" without asking "how might the situation differ from what I now assume?"

The correspondence bias, including the FAE, has been demonstrated so many times, in so many important and interesting contexts, that it has become a staple of modern social psychology. Because of the robustness of the correspondence bias, Gilbert and Malone (1995) half-jokingly suggested that perhaps some extraterrestrials may be free from the bias!

Yet there are reasons to suspect that the correspondence bias may not be so universal, especially to the extent that the bias is based on a lay theory of behavior, which may differ across cultures.

Incheol Choi, Richard E. Nisbett, and Ara Norenzayan, Department of Psychology, University of Michigan.

This research was supported by a Korean Foundation for Advanced Studies fellowship to Incheol Choi, a National Science Foundation doctoral fellowship to Ara Norenzayan, and grants from the Office of the Vice-President for Research of the University of Michigan and the Russell Sage Foundation.

We thank Marion Davis, Daniel Gilbert, Lijun Ji, Kaiping Peng, and Jeffrey Sanchez-Burks for their helpful comments on an earlier version of this article.

Correspondence concerning this article should be addressed to Incheol Choi, who is now at the Department of Psychology, 603 East Daniel Street, University of Illinois, Champaign, Illinois 61820. Electronic mail may be sent to ichoi@s.psych.uiuc.edu.

In this article, we focus on East Asian versus European American culture because so much of the relevant research has been conducted for the two cultures (for a comprehensive survey of past research on the two cultures, see Fiske, Kitayama, Markus, & Nisbett, 1998, and Markus & Kitayama, 1991). In addition, although there exist many interesting psychological differences between East Asian subcultures (e.g., Nakamura, 1964/1985) and between European subcultures (e.g., Galtung, 1981), there is reason to believe that intercultural differences in causal attribution outweigh intracultural differences (Fiske et al., 1998).

The typical finding in cross-cultural comparisons of causal attribution has been that the correspondence bias is weaker, and in some paradigms even nonexistent, in East Asian cultures (e.g., Miller, 1984; Morris & Peng, 1994). This has generated several interrelated questions, which we address in this article: (1) How robust is the attribution difference between East and West? (2) Where does the difference come from? Is the relative attenuation of the correspondence bias for East Asians due to a lack of dispositionist beliefs, or are East Asians simply more attuned to situations? (3) Are East Asians also less vulnerable to the FAE? (4) If Asians have dispositionist beliefs, are they different in any respect from those of Americans? (5) What are the consequences of cultural differences in causal attributions?

In dealing with these questions, we first outline the ways in which East and West differ in thinking styles, and then review the cross-cultural evidence revealing the scope and robustness of cultural differences in causal attributions. We then review evidence suggesting that the cultural variation is primarily due to stronger situationism in the East. We also show evidence for a cross-culturally widespread dispositionism, but highlight the extent to which Eastern and Western cultures support different kinds of lay dispositionism. Next, we review evidence that implies that East Asians are also less subject to the FAE and thus more accurate than European Americans. We close with implications of cultural differences in causal attribution.

However, we start this review with a caveat. Because our goal is to assess the differential contributions of dispositional versus situational inference to the cultural differences, we proceed as though the dichotomy of the person versus the situation is equally valid in the two cultures. However, we do not believe that this is the case, and we return to this issue later.

Holistic Versus Analytic Thinking: East and West

Ethnographers, philosophers, and historians of science have observed that lay theory in the modern West locates the responsibility for behavior primarily in the individual, a tendency that may be described as dispositionism. This is in contrast to the lay theory in East Asia focusing on the whole context of behavior, which may be called situationism or contextualism (Fiske et al., 1998; Hirschfeld, 1995; Hsu, 1981; Lloyd, 1990; Markus & Kitayama, 1991; Nagashima, 1973; Nakamura, 1964/1985; Triandis, 1995). Whereas Westerners focus on the individual, Easterners focus on the social situation. Thus, the psychologist Chiu (1972) observed that "Chinese are situation-centered. They are obliged to be sensitive to their environment. Americans are individual-centered. They expect their environment to be sensitive to them" (p. 236).

In the West, from the time of Aristotle onward, the locus of behavior has been seen to lie in the attributes of the person: attitudes, preferences, and motives. Indeed, even Aristotelian physics accounted for the behavior of objects by sole reference to the object's attributes. Not until the time of Galileo was it understood that the behavior of objects is the result of an interaction between the object and its environment. The contrast between object focus in the West and context focus in the East may underlie different thinking styles held to characterize the two cultures, namely analytic versus holistic. Westerners are held to be analytic, paying attention primarily to the object, categorizing it on the basis of its attributes, and attributing causality to the object based on rules about its category memberships (Lloyd, 1990; Nakamura, 1964/1985). In contrast, East Asians are held to perceive and reason holistically, attending to the field in which objects are embedded and attributing causality to interactions between the object and the field.

In an early study that illustrates this cultural difference, Abel and Hsu (1949) presented Rorschach cards to European American and Chinese American participants and asked them to provide responses according to the standard Rorschach procedures. They found that the Chinese Americans were more likely than the European Americans to give so-called whole-card responses in which all aspects of the card, or its gestalt as a whole, were the basis of the response. The European American participants, in contrast, were more likely than Chinese Americans to give "part" responses, in which only a single aspect of the card was the basis of the response. Analytic versus holistic style also influences how people categorize objects. Chiu (1972) gave items consisting of three pictures of human, vehicle, furniture, tool, or food categories to American and Chinese children. Children were asked "to choose any two of the three objects in a set which were alike or went together" and to state the reason for their choice (p. 237). The dominant style of the Chinese children was "relational contextual." For example, when shown a picture of a man, a woman, and a child, the Chinese children were likely to group the woman and the child together because "the mother takes care of the baby." In contrast, American children were much more likely to group objects on the basis of category membership (e.g., to group the man and the woman because "they are both adults") or on the basis of shared features (e.g., "because they both have a motor"). More recently, Choi, Nisbett, and Smith (1997) found evidence that Westerners rely on categories more than Easterners for inductive reasoning, and Norenzayan, Nisbett, and Smith (1998) found that category learning based on the formal application of rules is more difficult for East Asians than for Americans.

East–West Split in Causal Attributions

Person Description

How one describes the person—self or other—provides an opportunity to infer what kind of causal theory of behavior one has. To the extent that the person is believed to be a causal agent operating independently of context, the person may be described in terms of context-free general abstract dispositions. According to a lay theory of this sort, person descriptions need not be qualified by contextual considerations such as time, role, and situation. The description "Joe is generous" implies that Joe is generous to *most* people *most* of the time. On the other hand, to the extent that the situation is believed to be an important and sufficient determinant

of behavior, the person should be described in context-specific ways. For example, if Joe is generous only to his friends, it should be said that "Joe is generous to his friends." If Asian theory of behavior is more contextualized than the European American one, it should be the case that Asians are less likely than Americans to use abstract personality traits when describing themselves and others. Several studies support this hypothesis.

Other description. Shweder and Bourne (1982) asked Hindu Indians and Americans to describe their acquaintances and found that Hindu Indians' descriptions were contextualized with reference to roles, social identities, and occupations, whereas Americans' descriptions were more typically decontextualized and full of abstract personality traits. Miller (1987) demonstrated the same pattern and, in addition, found an important developmental trend. She asked Hindu Indians and Americans of different ages (8-, 11-, and 15-year-old children and adults) to describe the nature or personality of the person they knew well and another person they did not know well. Consistent with Shweder and Bourne's finding (1982), Miller (1987) found that American participants overall made more reference to general dispositions than Hindu Indian participants. More interestingly, the tendency to use general dispositions increased with age for Americans but not for Hindu Indians. This developmental pattern indicates that a theory of person or behavior is gradually socialized within a culture.

Self-description. Cousins (1989) asked Japanese and American college students to describe themselves in the Twenty Statement Test (TST; Kuhn & McPartland, 1954), in which they were asked to complete 20 statements beginning with the words "I am." Cousins (1989) found that American participants used general abstract personality traits (e.g., "I am curious," "I am sincere") three times as often as Japanese participants did. Japanese descriptions of self more often reflected their social identities (e.g., "I am a Keiyo student") or referred to specific contexts (e.g., "one who plays mah-jongg on Friday nights"). In short, Japanese self-descriptions were contextualized rather than abstract and specific rather than general.

Rhee, Uleman, Lee, and Roman (1996) found a similar pattern for Koreans. They administered the same TST to American, Korean American, and Korean students. Koreans' self-descriptions were more concrete and social than those of Americans. An interesting aspect of the findings in Rhee et al. (1996) is that Korean American students who identified themselves as Asians were more similar to Korean students with respect to self-descriptions than to American students and to other Korean American students who did not identify themselves as Asians. Chinese were also found to differ from Americans. Triandis, McCusker, and Hui (1990) and Ip and Bond (1995) found that Chinese, in response to the TST, were likely to use their group memberships rather than abstract personality traits as their American counterparts did.

Such cultural differences in person description cannot be explained away by any absence of the ability of East Asians to make abstractions. Cousins (1989) found that, although Japanese displayed more concrete self-descriptions, they also provided extremely abstract descriptions such as "I am a human being" or "I am a person of the 20th century." Miller (1987) also demonstrated that Hindu Indians were perfectly capable of matching a behavior with a corresponding trait.

In sum, when they describe themselves or others, East Asians tend to make more contextual references and fewer dispositional references than European Americans, implying that they have a more contextualized theory of behavior.

Spontaneous Trait Inference

The dispositional understanding of social behavior can occur spontaneously. Americans can be shown to infer personality traits from behavior without the intention to do so and without necessarily being aware of doing so (Newman & Uleman, 1989; Uleman, 1987; Winter & Uleman, 1984). This tendency has been called spontaneous trait inference (STI). One way to establish STI is to present participants with statements about behavioral episodes that can be understood in trait terms. For example, the statement "the librarian carried the old woman's grocery bags across the street" could be interpreted as "helpful," even though the word "helpful" is not in the statement. Then participants are asked to recall these sentences after being provided with trait cues corresponding to the behaviors. To the extent that people are encoding behaviors in terms of traits, trait cues should enhance recall. Indeed, it can be shown that, with American participants, trait cues produce better recall of the behavioral episodes compared with no cues and even compared with semantic cues (e.g., "books" is a semantic cue for the previous statement; Newman & Uleman, 1989).

Some indirect evidence suggests the possibility that individuals in context-centered cultures may engage in spontaneous trait inference to a lesser degree than individuals in person-centered cultures. Newman (1993) found that individuals high on idiocentrism (which is the individual-difference analogue of individualism at the cultural level) were more likely to be helped by trait cues in recalling trait-implying sentences compared with low idiocentrics. (This difference emerged, however, only for males.) Duff, Newman, and Walsko (1995) found similar results; the high idiocentrics showed a modest advantage in recall after being exposed to a trait cue, and the low idiocentrics showed no recall advantage.

There is also some tentative cross-cultural evidence that individuals in context-centered cultures are less likely to display STIs. In one study, Newman (1991) found no evidence for the occurrence of STI in a sample of urban fifth graders in a Puerto Rican neighborhood. Hispanic culture is similar to East Asian culture in that social understanding in both cultures is context centered (Hofstede, 1980; Triandis, 1995). In contrast, a suburban sample of Anglo American fifth graders showed clear evidence for STI. Newman (1991) attributed this difference to the relatively collectivistic nature of the Hispanic culture of the Puerto Rican students. In another study, Zarate and Uleman (1994) tested STI among Anglo and Hispanic university students. Consistent with the Newman study (1991), they found no evidence of STI in the Hispanic students, whereas the Anglo students showed clear evidence for STI.

The available evidence, then, suggests the real possibility that STI may be less prevalent in context-centered cultures than in person-centered cultures. However, the body of evidence is still small and less than robust. Moreover, there is no research examining STI among East Asians. Until more cross-cultural data are collected, these data should be considered preliminary.

Causal Explanation

Attributions for moral behavior. The earliest direct evidence for the relative weakness of the correspondence bias in Asian cultures comes from Joan Miller's work. Miller (1984) contrasted social explanations of Hindu Indians with those of Americans. She asked participants of varying ages (8-, 11-, and 15-year-old children and adults) from both cultures to explain an acquaintance's behavior that had a good outcome and another behavior that had a bad outcome. Participants' responses were content analyzed and coded as to whether they were abstract dispositional ones or contextual ones. Americans explained their acquaintances' behavior, either good or bad, predominantly in terms of corresponding traits, whereas Hindu Indians explained similar events in terms of social roles, obligations, and other context-specific factors. Contextual attributions were twice as frequent for Indians as for Americans, but dispositional attributions were twice as common for Americans as for Indians. The cultural difference was larger for bad behavior than for good behavior. This is, however, understandable given that a good or prosocial behavior is less diagnostic of its corresponding disposition (Jones & Davis, 1965; Reeder & Brewer, 1979). It is especially important that Miller found that such cultural differences appear gradually through socialization: American and Indian children were much more like each other in their causal attributions than American and Indian adults. Dispositional attributions increased with age for American participants but not for Hindu Indians.

Morris and Peng (1994; Morris, Nisbett, & Peng, 1995) provided a similar demonstration of cultural divergence in causal attribution for Chinese and Americans. They took advantage of two parallel tragedies that had occurred in the United States. In one, a Chinese graduate student at a midwestern university, angry at what he regarded as ill treatment at the hands of his advisor, shot and killed the advisor and several bystanders. At about the same time, a postal worker in Detroit, angry at what he regarded as ill treatment by his supervisor, shot and killed the supervisor and several bystanders. Morris and Peng analyzed accounts of the two incidents in an English language newspaper and in a Chinese language newspaper. They found that the English newspaper speculated heavily about the mental instability and other negative dispositions of the perpetrator as possible causes (e.g., "the man was mentally unstable," "darkly disturbed man who drove himself to success and destruction," and "he had a short fuse"). In contrast, the Chinese newspaper emphasized contextual, situational, and even societal factors (e.g., "did not get along with his advisor," "tragedy reflects the lack of religion in Chinese culture," and "followed the example of a recent mass slaying in Texas"). Morris and Peng showed that the same attributional patterns were obtained when Chinese and American university students were asked to explain the events: Chinese participants preferred contextual explanations, whereas American participants preferred dispositional ones. Choi and Markus (1998), in a conceptual replication of the Morris and Peng study (1994), discovered a similar divergence in causal attribution between Koreans and Americans.

Attributions for achievement. Another area in which lay theory of behavior is likely to manifest itself is in explanations of achievement. A dispositionist theory of behavior is more likely to lead to interpreting one's achievement mainly in terms of one's stable internal dispositions, such as ability, whereas a contextualist theory of behavior is more likely to lead to explaining similar outcomes in terms of context-specific factors and unstable internal dispositions, such as task difficulty and effort. Several cross-cultural studies demonstrate that this is the case. Stevenson and Stigler (1992) reported that children, parents, and teachers in East Asia believed effort was a far more important determinant of children's academic achievement than ability, whereas their American counterparts believed the opposite. For example, when asked whether they agreed with the statement "The tests you take can show how much or how little natural ability you have," children in Japan and in China tended to disagree (Japanese children strongly disagreed), but American children strongly agreed with it. Overall, East Asians' attributions for achievement are less internal than Americans' attributions (Chandler, Shama, Wolf, & Planchard, 1981; Yan & Gaier, 1994; see Crittenden, 1996, for a review).

Cultural differences in explanations for achievement are not limited to academic settings. Lee and her colleagues (Hallahan, Lee, & Herzog, 1997; Lee, Hallahan, & Herzog, 1996) examined newspaper accounts of outcomes in sports events and showed that American journalists focused on dispositional explanations for sports outcomes, whereas Hong Kong journalists focused on contextual ones.

Attributions for animal behavior. Anthropological theorists have long observed an elaborate mutual exploitation of explanations for human and animal behavior (e.g., Hirschfeld, 1994; Lévi-Strauss, 1962). Hallowell (1976), for example, noted a pervasive tendency to anthropomorphize animals and explain animal behavior in accordance with lay theories of human behavior. Therefore, it might be that European Americans explain animal behavior predominantly in terms of internal dispositions of the animal whereas Asians explain the same behavior in more context-specific ways. Morris and Peng (1994) showed that this was indeed the case. They provided several computer-generated cartoons of fish to Chinese and American students and asked them to explain the behavior of the fish. For example, participants saw a cartoon in which a single fish moved in one way and a group of fish moved in another. In one cartoon the single fish moved away from the group, and in another the single fish was joined by the group. Participants were asked whether the behavior of the single fish was best explained by external factors or internal ones. Consistent with cultural differences in explanations for human behavior, American participants generated internal accounts, whereas Chinese participants provided contextual accounts.

Attributions for physical movement. There are grounds for believing that metatheories of behavior go beyond perception even of animal behavior. Kurt Lewin (1935) noted that people tend to see even the behavior of objects as being exclusively due to attributes of the object, a mistaken physical theory that he called "Aristotelian." In Aristotelian physics, a stone drops into water because it has the property of "gravity." A piece of wood floats on water because it has the property of "levity." Lewin contrasted Aristotelian physics with "Galilean" physics, which recognizes that the behavior of objects is the result of an interaction between the object and the environment. Historical evidence indicates that ancient Chinese physics characterized the world as "wave based" rather than "particle based," and ancient Chinese physics is more similar to Galilean physics than to Aristotelian physics (Needham, 1962). The Chinese became interested in the principle of action at a distance, applying to the motion of the tides and to magne-

tism 1,500 years before Galileo. This perhaps occurred because of their attention to the physical context, which played little role either in Aristotelian or Western medieval science (Lloyd, 1990). Peng and Nisbett (1997) demonstrated that American students indeed explained the ambiguous movement of an object primarily in internal terms, whereas Chinese students were less likely to do so. This finding was obtained only for relatively ambiguous motion, such as hydrodynamic and aerodynamic events. For relatively unambiguous "billiard ball" and lever motion, they found, like Morris and Peng (1994), no differences between Chinese and Americans. It might be that ambiguous physical motion can be easily interpreted as due to internal attributes, as we know from the work of Michotte (1952). This may explain why cultural differences emerge for ambiguous motion, but not for unambiguous physical motion, which is likely to be understood in terms of a universal folk physics (McCloskey, 1983; Spelke, Phillips, & Woodward, 1995).

In conclusion, the East–West difference in causal attribution is overall quite robust, and it has been demonstrated in many paradigms with many different kinds of objects and events. However, what is the origin of this difference? Is it due to differences in dispositional theory, differences in sensitivity to context, or a combination of the two?

What Is the Locus of Cultural Differences in Causal Attribution?

To assess the locus of the cultural differences, the attribution process should be considered in some detail. It consists of at least two theoretically distinct cognitive operations. In Gilbert and Malone's (1995) and Krull's (1993) view, these are an initial resource-efficient dispositional inference and a subsequent effortful situational correction, or, when a person's attention is directed to the situation, an initial efficient situational inference followed by effortful dispositional correction.

There is substantial evidence concerning the process—dispositional versus situational inference—that contributes more to cultural differences. A careful look at the cross-cultural and ethnographic evidence, and work by us and others, suggests that stronger situational attribution for Asians may be more responsible for the cultural difference, and that there is a smaller difference in the strength of dispositional inferences across cultures. In support of this view, we present evidence for East Asians' stronger situationism, followed by evidence for the prevalence of dispositional theories across cultures, including East Asia.

There are at least three possible models to explain such cultural differences: (a) It may be that Asians follow a sequence of situational inference followed by dispositional correction, whereas Americans follow a sequence of dispositional inference followed by situational correction; (b) Asians may make more situational corrections than Americans, with little difference in dispositional inferences; and (c) the initial dispositional inference might be weaker for Asians than for Americans. All of these possibilities seem to be plausible. As far as we know, no research has been done to address these questions. Therefore, we do not attempt to provide any definite answer to the question of attributional sequence.

Situationism East and West

Use of consensus information. We can infer what kind of causal theory a person has from the way the person uses causally relevant information. Kelley (1967) proposed a covariation model of causal attribution that prescribes a normative usage of causal information: reliance on consistency, distinctiveness, and consensus information. For example, when asked to explain why Ralph tripped on Joan's feet, and given that one knows that hardly anyone trips on Joan's feet (low consensus), that Ralph always trips on Joan's feet (high consistency), and that Ralph trips on other partners' feet (low distinctiveness), then people should attribute Ralph's behavior to an internal disposition: He is clumsy.

However, McArthur (1972) found that people systematically deviate from these normative rules in their usage of the three types of information that Kelley's model prescribes. Specifically, people strikingly underuse consensus information. The information that either "almost everyone" or "hardly anyone" behaves in the same way has little effect on people's causal attributions. Such information ought to have a substantial effect on the degree to which Ralph's tripping is attributed to something about him versus something about the situation, but it does not. Then why underuse of consensus information? Why not overuse of consensus information or underuse of consistency or distinctiveness information? This can be interpreted as being due to Western lay causal theory that is relatively insensitive to the situational constraints on behavior, because high consensus implies powerful situational factors and low consensus implies either weak situational factors or strong dispositional ones.

If East Asians' causal beliefs are more sensitive to situational constraints than Westerners' beliefs and the two groups have similar dispositionist beliefs, we should expect that East Asians would make more use of consensus information than Westerners. There is one study that supports this hypothesis. Cha and Nam (1985) replicated McArthur's study in Korea and found that their Korean participants used consensus information far more than the American participants in McArthur's study, even though their participants were about as responsive as Americans to consistency and distinctiveness information. This pattern suggests that Koreans may be more sensitive to the situation than Americans inasmuch as they were able to recognize that high consensus suggests powerful situational factors. It is important to note, however, that the Korean participants made attributions to the person as much as did Americans, indicating that their dispositional theories might be no weaker.

Situation-based prediction. Causal attribution involves predicting the behavior of other people as much as it involves explaining their behavior. In fact, Heider (1958) and other early attribution theorists thought that people engage in causal explanations of events so as to predict similar ones in the future. When we wonder whether or not a friend will like the restaurant we recommended to her, or if the local congresswoman will vote in favor of an issue, we are trying to predict the future behavior of other people. Do East Asians rely on situational context more than Westerners in prediction just as they do in social explanation and person description?

The answer appears to be yes. Norenzayan, Choi, and Nisbett (1998, Study 3) asked American and Korean participants to make two kinds of predictions: (a) situation-based predictions for the

behavior of a group of individuals ("aggregate" prediction), and (b) predictions for the behavior of a single individual based on personality information and situational information ("single-case" prediction). Participants responded to six different vignettes, regarding six different trait-implying behaviors: helpful, aggressive, friendly, dishonest, talkative, and punctual.

For "aggregate" prediction, participants were asked to predict how many people out of 100 randomly selected individuals would engage in a trait-implying behavior (such as giving money to a stranger for a bus ride, implying "helpful") in that situation. Half of the participants were given situational information that would *facilitate* the behavior in question ("Jim has plenty of money in his pocket"), and the other half read situational information that would *inhibit* the behavior ("Jim has enough money only to pay for his own bus ticket, and he has an important business meeting to attend.") The results (Figure 1) showed that Korean predictions were more context sensitive than American predictions: Compared with Americans, Koreans predicted that more people would engage in the given behavior when the situation facilitated that behavior, and they predicted that fewer people would engage in the behavior when the situation inhibited the behavior (the interaction was significant at $p < .01$).

In the single-case prediction, all participants first read that the target person engaged in a trait-implying behavior. For example, they read that Jim gave a quarter to a stranger who needed to make a telephone call, implying that Jim is a helpful person. Next, participants read about a future situation in which Jim might or might not act in a trait-consistent manner (a stranger asks Jim for money to buy a bus ticket), and the same situational information as in the aggregate prediction task was provided: Half of the participants received the facilitating situational information ("Jim has plenty of money in his pocket"), and the other half received the inhibiting situational information ("Jim has enough money only to pay for his own bus ticket, and he has an important business meeting to attend").

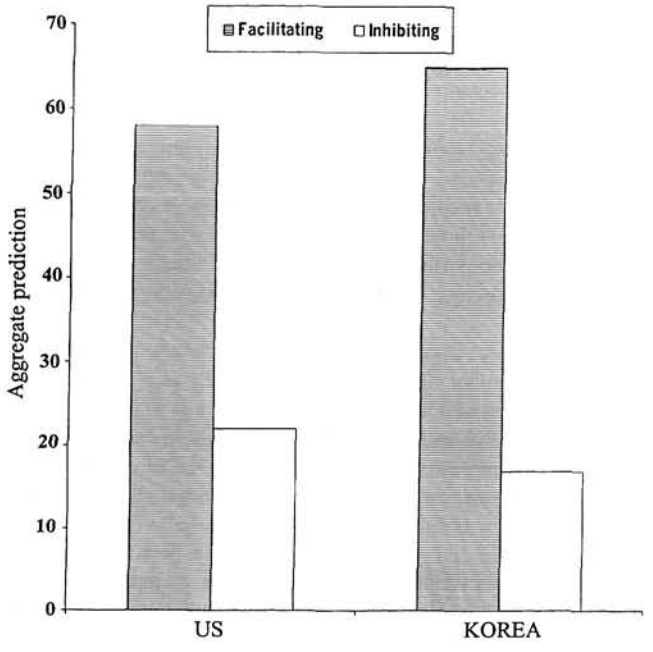

Figure 1. Mean aggregate predictions for each cultural group and type of situational information (facilitating vs. inhibiting), averaged across six behaviors. US = United States.

Furthermore, the type of situational information (facilitating vs. inhibiting) was made attention demanding (or salient) for some of the participants to increase the chances that it would be used in the subsequent prediction. This was done by manipulating the temporal order in which the aggregate prediction task and the single-case prediction task were presented to the participants. Some participants carried out the aggregate prediction task before doing the single-case prediction task, whereas others carried out the aggregate prediction task after doing the single-case prediction task. The authors reasoned that performing the aggregate prediction task before the single-case prediction task would make the situational information temporarily salient when making single-case predictions.

As seen in Figure 2, Korean participants were more likely than Americans to use situational information in their single-case predictions, but only when the situational information was made salient. In contrast to Korean predictions, American predictions were not at all influenced by making the type of situational information salient.

The findings of this study are clear: (a) When dispositional information was not applicable (for the aggregate prediction), Korean participants used situational information more than American participants, providing evidence for a stronger belief in situational influence in East Asian than American participants; (b) when dispositional information was present and situational information was not salient, Korean and American participants were not different in their predictions about a single person, suggesting that both personality and situational information was used about equally by both cultural groups; and (c) Korean participants used situational information more than American participants in making predictions about a single person, even when dispositional information was present, as long as the situational information was made salient.

Newman (1991) found a similar pattern when comparing the social predictions of Anglo and Latino fifth graders. He found that predictions for the future behavior of a target person made by Latino fifth graders were more influenced by information about situational constraints than were predictions made by Anglo fifth graders. This difference can be best attributed to the context-centered Hispanic culture to which the Latino fifth graders belong.

Attitude attribution. One of the main paradigms used to examine the correspondence bias and the FAE in particular is Jones and Harris's (1967) attitude attribution paradigm. Several studies were conducted to compare attitude attribution of East and West within this paradigm (Choi & Nisbett, 1998; Kashima, Siegel, Tanaka, & Kashima, 1992; Kitayama & Masuda, 1997; Krull et al., 1996; Masuda & Kitayama, 1996).

In Choi and Nisbett's (1998) study, Korean and American participants read an essay either supporting or opposing capital punishment and allegedly written by another person. In the choice condition, participants were told that the target person wrote the essay under conditions of free choice and could choose which side of the issue to support. In the no-choice condition, participants were told that the target person was assigned to one side of the issue to defend regardless of the person's own attitude toward the

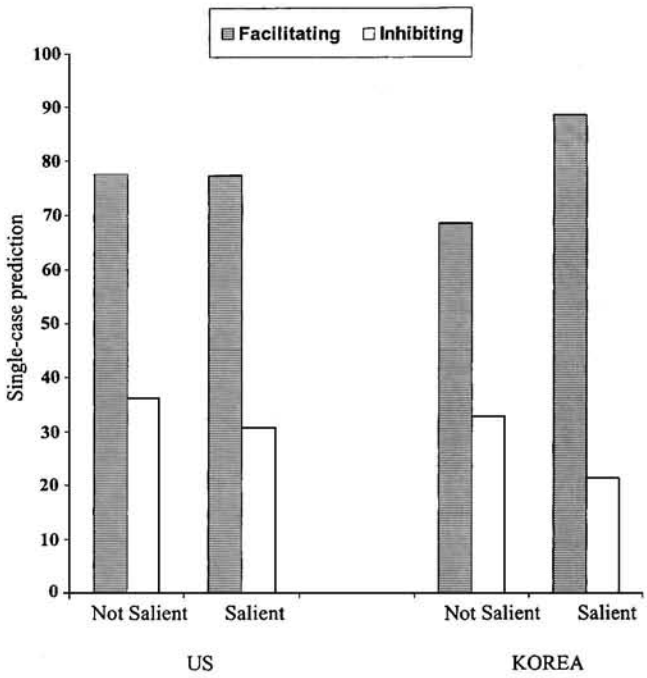

Figure 2. Mean single-case predictions for each cultural group, type of situational information (facilitating vs. inhibiting), and salience of situational information, averaged across six behaviors. US = United States.

issue. Participants in both conditions were then asked to infer the true attitude of the essay writer. In the no-choice condition, both the true attitude of the target person and the situational constraints should be seen as sufficient causes for writing an essay supporting one side of the topic. Therefore, inferring that the attitude of the target person "corresponds" to that expressed in the essay is logically justified in the choice condition but far less justified in the no-choice condition (Jones, 1979; Jones & Davis, 1965).

Choi and Nisbett (1998) found that both Korean and American participants inferred the corresponding attitude of the essay writer in the no-choice condition. In other words, both groups displayed the correspondence bias, which in this case can be described as the FAE because a correspondent inference is not logically warranted. It is important to note that this finding is not isolated. Kashima et al. (1992) and Kitayama and Masuda (1997; Masuda & Kitayama, 1996) found the FAE for Japanese, and Krull et al. (1996) found the same pattern for Chinese in the same paradigm. Do all these findings mean that East Asians are as equally vulnerable as Americans to the FAE in Jones and Harris's (1967) paradigm?

Choi and Nisbett (1998) reasoned that such a lack of cultural difference might be due to relatively low salience of the situational constraints in the standard no-choice condition of the attitude attribution paradigm. This reasoning is consistent with Gilbert and Malone's (1995) argument for why the salience of situational constraints is important. They argued that (a) people often do not recognize situational constraints and (b) even if they do recognize them, they tend to underestimate the power of those constraints. Therefore, Choi and Nisbett expected that once the constraints were made obvious, Korean participants would recognize the power of the constraints more than American participants.

Salience was manipulated in two ways in their Study 2. In the exposure condition, participants themselves were asked to write essays either supporting or opposing capital punishment, regardless of their genuine attitudes toward it, before reading the target person's essay. This manipulation was intended to expose the participants to the same situational constraints under which the target person allegedly wrote the essay in the no-choice condition. If participants in this condition were able to realize that their essays were not true reflections of their own genuine attitude, they then should think of the target person's essay in the same way. As a consequence, they should be less vulnerable to the FAE. This manipulation was exactly what Jones and Harris (1967) had tried in their classic study with the hope of reducing the FAE for their American participants. However, they had found that their participants were not responsive to this salience manipulation at all and that they still displayed the error.

Participants in another condition, the exposure plus arguments condition, were also asked to write essays either supporting or opposing capital punishment, regardless of their genuine attitudes. However, they were given four arguments, either supporting (in the pro-essay condition) or opposing (in the anti-essay condition) capital punishment, and it was recommended that they use them in their essays. Moreover, they were told that the target person had also been provided with those four arguments, and the four arguments did indeed appear in the target person's essay. The purpose of this manipulation was to make the constraints even more salient than in the exposure condition by inducing participants to realize that the target person's essay was almost a verbatim copy of the four arguments. This manipulation was contrived by Snyder and Jones (1974), but again the researchers found little indication that their American participants were responsive to this seemingly powerful manipulation (Snyder & Jones, 1974, Study 1).

Choi and Nisbett (1998; Study 2) also were able to explore the actor–observer difference (Jones & Nisbett, 1972) across cultures. Participants went through the exact same situation as the target person allegedly did, upholding a particular view about capital punishment regardless of true attitudes. The actor–observer difference hypothesis predicts that participants would attribute their own behavior, their essays in this case, to the situational constraints but attribute the target person's essay to his or her true attitude. However, if Asians are truly sensitive to the situational constraints, such an actor–observer difference might be smaller or even nonexistent.

As can be seen in Figure 3, American participants displayed the FAE to the same degree in the two exposure conditions as in the standard no-choice condition. The manipulations of constraint salience did not make any difference to them. In contrast, Korean participants showed a significant decrease in the FAE from the standard no-choice condition to the exposure condition and in turn from the exposure condition to the exposure plus argument condition.

To test the actor–observer hypothesis, Choi and Nisbett (1998) asked their participants two questions: How much did participants think that they themselves had expressed their genuine attitudes in their essay? How much did participants think that the target person had expressed his or her genuine attitude in his essay? Korean participants answered the two questions in the same way, indicating that they believed that the target was no more likely to be expressing his or her true views than they themselves were. Amer-

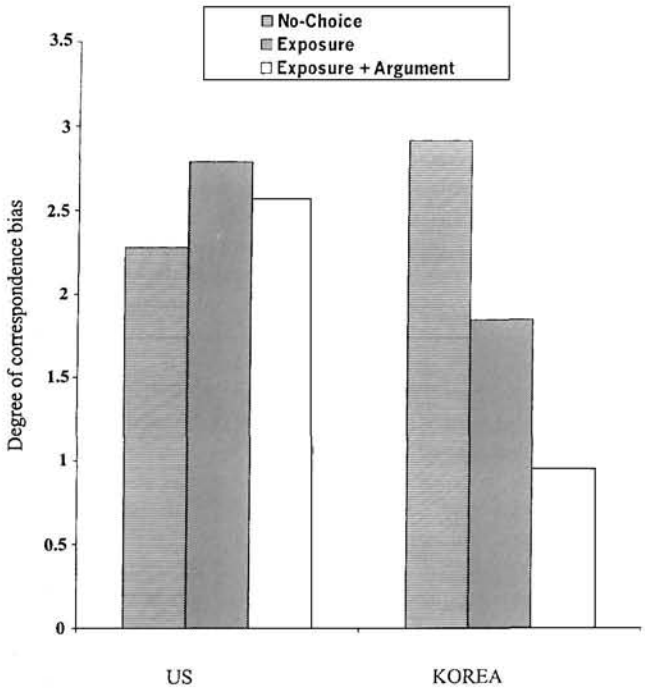

Figure 3. The degree of correspondence bias: mean difference of the inferred attitude between the pro-essay and the con-essay conditions. US = United States.

ican participants, in contrast, reported that the target person probably expressed his or her attitude in the essay more than they themselves had. Also, the correlation between the two responses was positive and significant for Korean participants, indicating that the more they thought their essay was not reflective of their own attitudes, the more they thought this was also the case for the target. No such correlation was found for American participants. These results indicate that Americans are not sufficiently cognizant of the power of the situational constraints in this situation to recognize that they might apply to people other than themselves.

Masuda and Kitayama (1996) and Kitayama and Masuda (1997) used a similar salience manipulation in the same attitude attribution paradigm with Japanese participants and demonstrated a similar pattern. For example, in a choice condition, Masuda and Kitayama (1996) had participants see a target person arguing for one or the other position on the issue of environmental protection. In a standard no-choice condition, participants were told that, because the experiment required a video of one of the two attitudinal positions, the target was asked to read that position rather than the other. Like American participants (Gilbert & Jones, 1986), Japanese participants displayed the FAE in the standard no-choice condition. However, a very dramatic difference emerged in another condition. Two participants were present in each session, and one of them (randomly assigned) chose between two identical envelopes that contained essays to be read by the target person. The target person then read in front of a video camera the essay chosen by the participant. The other participant observed all these events. Even in this condition, Gilbert and Jones (1986) found the FAE for American participants. In contrast, Masuda and Kitayama (1996) showed that for Japanese participants the FAE disappeared completely. As can be seen in these studies, the difference between Asians and Americans is not that the FAE cannot be demonstrated for Asians in the Jones and Harris paradigm but rather that it can be reduced or eliminated for Asians when situational constraints are salient.

Dispositionism: East and West

East Asians are more attuned to situational influence than Americans. Are they also less prone to dispositionist thinking? Some theorists have claimed that dispositional concepts are rare or absent in non-Western societies. Hirschfeld, for example, wrote that "in many, perhaps most, cultures there is a marked absence of discourse that explains human behavior in terms of transsituationally stable motivational (or intentional) properties captured by explanations of trait and disposition" (1995, p. 315).

A survey of the ethnographic and psychological literature suggests, however, that dispositionist thinking is in no way absent in non-Western cultures, including East Asian cultures. Indeed, there is substantial evidence that East Asians do have and use dispositions in much the same way that Americans do.

Cognitive organization of personality structure. The so-called Big Five personality factors—Extroversion, Neuroticism, Conscientiousness, Agreeableness, and Openness—have been found to be quite robust in the English language (Goldberg, 1990) as well as in Dutch, German, Spanish, Italian, Finnish, and Polish (McCrae, Costa, & Yik, 1996) and in Portuguese, Hebrew, Chinese, Korean, and Japanese (McCrae & Costa, 1997). There is growing evidence that the Big Five personality factors emerge in East Asian cultures. The same five-factor structure was extracted in Hong Kong Chinese undergraduates using the Chinese translation of the NEO Personality Inventory–Revised (NEO-PI-R), an instrument based on the Big Five factors and developed and standardized in the United States (McCrae et al., 1996). The five factors were also replicated in mainland China (Leung, Cheung, Zhang, Song, & Dong, 1997), Taiwan (Yang & Bond, 1990), and Korea (Piedmont & Chae, 1997). Some replications in East Asia have produced fewer than five factors. For example, the first four of the five factors were clearly identified for Japanese (Bond, Nakazato, & Shiraishi, 1975) and for Philippines (Guthrie & Bennet, 1971), but similar findings have been reported for Western participants (Digman, 1990; McCrae et al., 1996).

All of the studies mentioned previously used translated versions of personality assessment inventories developed in the United Sates. Thus, the question arises as to whether similar results can be obtained using an entirely indigenous personality inventory consisting of trait terms derived from that particular culture. Furthermore, it is important to find out to what extent imported instruments succeed in capturing indigenous conceptions of personality. One attempt to assess the correspondence between imported and indigenous personality items was carried out by Yik and Bond (1993). These researchers administered a translated Western instrument measuring the Big Five factors as well as an indigenous instrument to Hong Kong Chinese students. A joint factor analysis revealed an eight-factor solution, and the amount of variance in the indigenous factors explained by the imported factors was adequate, about 48% on average.

In a major effort to develop an indigenous personality inventory in China, Cheung and her colleagues (Cheung, Leung, Fang, et al.,

1996; Cheung, Leung, Law, & Zhang, 1996) selected items descriptive of personality from popular contemporary Chinese novels, books on Chinese proverbs, self- and other descriptions of students and professionals, and the indigenous psychological literature on Chinese personality concepts. On the basis of these items, as well as personality scales commonly found in English language tests, they constructed the Chinese Personality Assessment Inventory (CPAI). Cheung and her colleagues administered the CPAI to a large sample from Hong Kong and China. Their factor-analytic solution revealed four factors, three of which roughly corresponded to Conscientiousness, Extroversion, and Neuroticism of the Big Five factors. Interestingly, the researchers found an indigenous factor, which they described as the "Chinese Tradition" factor, a construct that captures personality descriptions related to maintenance of interpersonal and inner harmony and *Ren Qin* (relationship orientation). Cheung, Leung, Law, and Zhang (1996) subsequently conducted a joint factor analysis of the CPAI items and the Chinese translation of the NEO-PI-R based on the same Chinese sample. The results revealed six factors: the five factors plus the Chinese Tradition factor. It is worth noting that none of the NEO-PI-R scales loaded on the Chinese Tradition factor, and none of the CPAI scales loaded on the Openness factor. Thus, Openness, the smallest and least reliable factor of the Big Five factors, although recognizable, seems not to be a culturally relevant personality dimension for the Chinese. Conversely, the Chinese Tradition dimension is a major personality construct for the Chinese entirely missed by Western personality instruments (although it is an interesting question for further research to see whether the factor would emerge for Westerners responding to a translated CPAI).

In sum, the cross-cultural replications of semantic structure of personality—based on imported as well as indigenous instruments—clearly suggest that people in East Asia recognize and cognitively organize personality information, at least in their language, in a manner rather similar to that in the West. Although the number of personality dimensions that emerges varies from study to study, and the salience of various personality constructs differs across cultures in interesting ways, implicit personality theory appears to be alive and well in the context-centered cultures of East Asia. One caveat is needed here. Although East Asian languages have similar vocabularies to describe personality, that does not necessarily mean that East Asians use personality terms in the same way as Americans. For example, it may be that East Asians use personality traits simply to describe behavior, not to explain it. Although the behavioral prediction data (described next) speak against this possibility, further research should be carried out to examine this issue.

Disposition-based prediction. We have shown that East Asians and European Americans have similar semantic representations of personality structure. This suggests that the cultural groups agree about which behaviors go together and which behaviors can be best described by which personality traits (Miller, 1987). However, these facts do not establish that people from the two cultures use the personality taxonomy in the same way in their inductions. Having a similar taxonomy does not guarantee identical usage of it (Atran, 1993; Choi et al., 1997). For example, although Atran (1993) found an almost identical folk taxonomy of natural kinds among Americans and the Itza Maya, an indigenous people in Guatemala, the two populations used the taxonomy somewhat differently in making inferences about the likelihood of different animals acquiring an unknown disease. In addition, there is the possibility that even if East Asians describe behaviors in terms of the same personality traits as Americans, perhaps they would not use them in causal explanations of behavior as Americans do.

It is a common and important everyday task to predict the future behavior of another person on the basis of information about the person's past behavior. Personality traits, when they have causal meanings, can be used to predict future behavior. Past research with Americans has shown that they are willing to make confident predictions about future behavior based on even a very small sample of past behavior (Kunda & Nisbett, 1986). Moreover, they consistently overestimate the predictive power of personality traits (Dunning, Griffin, Milojkovic, & Ross, 1990; Kunda & Nisbett, 1986; Newman, 1996; Ross & Nisbett, 1991). Can this tendency be found in East Asian cultures?

Norenzayan, Choi, and Nisbett (1998, Study 1) addressed the question of the extent to which East Asians make as confident predictions about future behavior as Americans. In their cross-cultural study of lay behavioral predictions, the researchers adopted a procedure similar to the one used by Kunda and Nisbett (1986), asking American and Chinese participants to make predictions about an actor's future behavior, given knowledge of his behavior in a past situation. In one condition, participants read about two target individuals in the form of individual differences in a certain concrete behavior implying a trait but with no mention of a trait label. Then participants were asked to predict the extent to which they believed this individual difference would be reflected in another concrete behavior, which implied the same trait. Participants read six vignettes that contained six different behaviors or traits. For example, a concrete behavior scenario for the trait "helpful" was as follows:

> Suppose you observed two people, A and B, being asked to participate in a blood donation drive and saw that A volunteers more hours than B collecting blood. What do you suppose is the probability that, being approached by a homeless person asking money to buy food, A gives more money to the homeless person than B?

In another condition, participants read similar scenarios based on individual-difference information in some explicitly stated trait (e.g., "Person A was more helpful than Person B"), and were asked to predict the extent to which they believed that this individual difference would remain stable in the future.

The data revealed clear evidence that East Asians use personality traits in prediction in a similar way as Americans. When converted to correlation coefficients,[1] American and Chinese probability estimates (ranging from 50–50 to 100, with higher numbers indicating more certainty in the stability of individual differences) for concrete behaviors were the same, both corresponding to a correlation of .66. Thus, Chinese participants were as likely as

[1] This transformation was based on Kendall's formula (1962, p. 124): $E(r) = \sin(\pi\tau/2)$, where τ is the proportion of pairs of objects having the same relative order in their ranking on two variables (in this case, the proportion of pairs in which Observer X thinks $A > B$ and Observer Y also thinks $A > B$) minus the proportion of pairs showing different relative order in the two rankings.

Americans to infer high cross-situational stability of social behavior from concrete behavioral information, suggesting the occurrence of spontaneous inference of traits from behavior (Uleman, 1987) in both cultures. Similar results emerged when the individual-difference information was explicitly stated in terms of traits. American and Chinese probability judgments corresponded to .64 and .68, respectively. All of these judgments constitute drastically erroneous estimates for the likelihood of the co-occurrence of two behaviors tapping the same trait, which does not typically exceed a correlation of .10 (Ross & Nisbett, 1991).

If East Asians possess a strong personality theory, they might be expected to make trait-based predictions not only for similar situations, but also for quite different situations. To test this prediction, Norenzayan, Choi, and Nisbett (1998; Study 2) manipulated the apparent similarity of the situations for which participants were to make predictions. Indeed, Chinese participants were not only as likely to make strong predictions about consistency as American participants for the similar situations, they were also as likely to do so for the different situations. Moreover, neither group of participants was significantly sensitive to the similarity manipulation in their predictions; both gave predictions that were as strong across different situations as across similar situations. This was true despite the fact that participants agreed with the experimenters that the different situations were indeed much more different from each other than the similar situations and despite the fact that, within each condition, participants' judgments about the similarity of the situations was a good predictor of the strength of their predictions about similarity of behavior for both American and Chinese participants.

Another criterion for East Asian dispositionism relies on the notion that people implicitly quantify the consistency of traits in terms of their scope (Gidron, Koehler, & Tversky, 1993; Reeder & Brewer, 1979). Traits high in scope are perceived to require a large amount of behavioral evidence to infer their existence, whereas low-scope traits can be inferred from few behavioral instances. In other words, some behaviors are believed to warrant stronger dispositional inference than others. Past research with Western samples has shown that negative behaviors (e.g., dishonesty) are perceived to have lower scope (and be more strongly dispositional) than positive behaviors (e.g., helpfulness) (Gidron et al., 1993).

If East Asians are similar to Westerners in their use of dispositional information for predictions of social behavior, then their predictions might show the same sensitivity to the scope manipulations of behaviors as found among Westerners. This was indeed the case. In three different studies, Norenzayan, Choi, and Nisbett (1998) demonstrated that Chinese and Korean respondents, similar to Americans, gave higher predictions for negative behaviors compared with positive behaviors, revealing an implicit belief in all three cultural groups that negative behaviors warrant a stronger dispositional inference than positive behaviors, which in itself is evidence that lay dispositionism was the underlying psychological mechanism driving the participants' thinking.

Disposition-based explanation. East Asians' use of personality concepts is not limited to prediction. Choi and Markus (1998) found that both Koreans and Americans made internal attributions at comparable levels. Participants in one condition of their study were given a murder case in which a high-status person (i.e., a professor) killed a low-status person (i.e., a graduate student) and were asked to explain why the incident happened. Although Korean participants relied more on contextual explanations than Americans, they did not differ in the amount of dispositional explanation for the behavior of the perpetrator.

Furthermore, as discussed earlier, the attitude attribution studies by Choi and Nisbett (1998), Kashima et al. (1992), Kitayama and Masuda (1997), and Masuda and Kitayama (1996) found that Koreans, Japanese, and Americans made similar dispositional attributions in the no-choice condition of the attitude attribution paradigm. Krull et al. (1996) found the same pattern for Chinese participants.

Among the causal attribution studies that we reviewed earlier, one used a composite measure of attribution (combining situational and dispositional attributions in a single scale) and, therefore, cannot help us disentangle dispositional and situational attributions (Lee et al., 1996). In her classic study, Miller (1984) did find a cultural difference in dispositional explanations in addition to a difference in situational explanations between Americans and Hindu Indians. In the Morris and Peng (1994) study, the results for dispositionism were mixed. Although the researchers consistently found more reliance on context for Chinese, they did not always find a cultural difference in dispositional attributions. Finally, Choi and Markus (1998), as discussed previously, found more Korean than American contextual explanations but no cultural difference in dispositional explanations. Thus, in three causal attribution studies (Choi & Markus, 1998; Miller, 1984; Morris & Peng, 1994) that provide independent data on situational and dispositional attributions, all three found a difference in situational attributions. However, only one study (Miller, 1984) found a reliable and consistent difference in dispositional attributions. Thus, a tentative conclusion based on the causal explanation studies, the prediction studies, and the attitude attribution studies is that cultures reliably differ in degree of situational attribution but differ relatively less in dispositional attribution.

Ethnographic accounts. There are a number of ethnographic accounts of non-Western societies for which anthropologists have reported dispositionist thought. In many cases, ethnographies that report a context-oriented folk explanation of behavior also report some degree of dispositionism in the same societies. One interesting example is an ethnopsychological account of the Ifaluk, an indigenous people of Micronesia, conducted by Catherine Lutz (1985). Lutz wrote that "most everyday explanations of behavior on Ifaluk are concerned with the situational causes of particular acts and their associated mental states" (p. 56). However, Lutz reported that, among other types of explanations, "a final type of explanation for behavior is one made in terms of enduring personal traits such as 'hot temper' or 'calmness'" (p. 58). In Ifaluk folk psychology, "People do have tendencies to feel, think and behave in certain predictable ways" (p. 65). Furthermore, Lutz explained that Ifaluk trait terms share many of Westerners' conceptions of personality traits, such as their origin in early experience.

Similarly, the folk psychology of the Songhays, a people residing in Eastern Mali in Africa, were reported by Olivier De Sardan (1973) to include "character" traits such as *lakkal* (intelligence, understanding), *bine* (courage), and *hawi* (shame). A Yoruba (West African) divination poetry reported by Abimbola (1973) includes person descriptors such as "wicked," "truthful," and so on (p. 82). Richard Shweder (cited in Shweder & Bourne, 1991), in a study of the Brahman community in Oriya, India—a people with a deeply context-centered folk psychology—gave his 43 informants a list of 99 descriptive phrases describing concrete behav-

iors and asked them to classify these behaviors in terms of underlying general personality traits. Shweder's informants had no problem performing this task. They successfully generated 420 different abstract trait and type terms, indicating that the Oriya informants were capable of inferring underlying general dispositions from concrete behaviors.

A strong demonstration of non-Western dispositionism can be seen in ethnographic data collected by Whiting (1996), in her study of folk beliefs about child rearing among the Kikuyu of Kenya. Kikuyu mothers were asked to explain individual differences in various behaviors seen in children. A large number of the answers the women provided were trait explanations of individual differences. Furthermore, the Kikuyu informants thought that some of the traits, such as good hearted and brave, were inherited from parents, whereas others, such as laziness and obedient, were thought to be acquired through parental upbringing. Indeed, some cultural theorists have argued for a place for notable individualism in some African societies (La Fontaine, 1985) and in some historical periods in China (Elvin, 1985; Munro, 1985; Nakamura, 1964/1985).

Eastern Versus Western Dispositionism: Universal But Specific

We began with several questions: What is the true difference in attributions between East and West? Are Easterners entirely free from the FAE? Is the relative absence of the FAE an outcome of the lack of dispositionist belief on the part of Easterners? If they do have dispositionist beliefs, how are they different from Westerners' beliefs?

So far, we have tried to show that the typical East–West differences in causal attributions derive primarily from East Asians' relative sensitivity to situational influences on behavior, not from their lack of dispositionist beliefs. Reflecting on such cross-cultural findings on causal attribution, Aronson, Wilson, and Akert (1994) observed that "people in Western cultures appear to be like personality psychologists . . . whereas people in Eastern cultures seem to be more like social psychologists" (p. 185).

More direct evidence for such a conclusion comes from work by Norenzayan, Choi, and Nisbett (1998). The authors developed three arguments about human behavior, each representing dispositionism, situationism, and interactionism, and they asked Korean and American college students how much they agreed with each argument. The three arguments, respectively, were as follows:

> How people behave is mostly determined by their personality. One's personality predisposes and guides an individual to behave in one way, not in another way, no matter what circumstances the person is in. In a sense, behavior is an unfolding of personality. One's behavior is remarkably stable across time and consistent across situation because it is guided by personality. Therefore, if we know the personality of one person, we can easily predict how the person will behave in the future and explain why that person behaved in the particular way in the past.

> How people behave is mostly determined by the situation in which they find themselves. Situational power is so strong that we can say it has more influence on behavior than one's personality. Often, people in a particular situation behave very similarly, despite huge individual differences in personality. Therefore, in order to predict and explain one's behavior, we have to focus on the situation rather than personality. Personality plays a weaker role in behavior than we used to think.

> How people behave is always jointly determined by their personality and the situation in which they find themselves. We cannot claim that either personality or the situation is the only determinant of our behavior. Our behavior is an outcome of the complex interaction between personality and situational factors. We always have to consider personality and situation simultaneously. Therefore, we cannot predict and explain one's behavior with personality or situation alone.

Norenzayan, Choi, and Nisbett (1998) found no cultural differences between the two groups regarding dispositionism. However, they found that Korean students endorsed situationism ($p < .005$) and interactionism ($p < .001$) significantly more than American students. This finding shows that cultural differences in the self-report of participants' implicit theory of behavior are consistent with the cultural differences in actual causal attributions, which are assumed to be derived from their implicit theory of behavior.

We have also shown that East Asians use their dispositional beliefs for explanation and prediction and sometimes succumb to the FAE in the way European Americans do. However, although we used the convenient person–situation dichotomy throughout this article, there is reason to believe that East Asian thinking does not make a sharp person–situation distinction and that consequently dispositionism in East Asian culture fundamentally differs from that of European American culture in many important ways. We believe that East Asians may have a more holistic notion of the person in which the boundary between the person and the situation is rather porous and ill defined. Two different lines of evidence support this proposal. In addition, we argue that East Asian dispositionism may view the group as a natural unit of agency, whereas European American dispositionism may view the individual as a unit of agency.

First, we propose that Western dispositionism is analogous to what Dweck and her colleagues call "entity theory" (Dweck, Hong, & Chiu, 1993), whereas East Asian dispositionism is more like "incremental theory." Both theories are about dispositions, but they differ regarding the malleability of dispositions. Entity theorists believe that dispositions such as personality, intelligence, and moral character are fixed and that people cannot change them at will. In contrast, incremental theorists believe that dispositions are flexible and malleable. Dweck and her colleagues demonstrated that social judgment may differ depending on the implicit theory a person has. For example, entity theorists are more likely to infer global dispositions from limited behavioral evidence and to rely on dispositions in social judgment compared with incremental theorists (Chiu, Hong, & Dweck, 1997). Compared with entity theorists, incremental theorists make trait inferences that are more specific (they do not endorse global traits), more provisional (they are responsive to contradictory information), and more conditional (they expect change with changed circumstances). If East Asians have a holistic notion of the person and the situation, it would be reasonable for them to hold to an incremental theory rather than an entity theory.

Indeed, there is evidence that East Asians' dispositional beliefs, compared with Americans' beliefs, are closer to those held by incremental theorists. Norenzayan, Choi, and Nisbett (1998) administered the scales measuring entity versus incremental theory of personality devised by Erdley and Dweck (1993) to Korean and American college students. Participants were asked to express how much they agreed with the following four statements:

1. Someone's personality is something about them that they can't change very much.
2. A person can do things to get people to like them, but they can't change their real personality.

3. Everyone has a certain personality, and it is something that they can't do much about.
4. A person can change the way they act, but they can't change their real personality.

Incremental theorists tend to disagree with these statements. Norenzayan, Choi, and Nisbett (1998) found that Korean students disagreed with each of the four statements more than American students, indicating that Koreans endorse incremental theory of personality to a greater degree than Americans.

Second, Choi and Markus (1998) found that Koreans tend to believe that personal dispositions of an individual are actually shaped by the surrounding context. When they asked Korean and American college students to explain a murder case, Korean students were as likely as Americans to explain the incident with respect to internal attributes of the person. However, at the same time, they described the particular social contexts that presumably had given rise to those dispositions; for example, "He was violent because he had a hobby of shooting," "He became ambitious because he had grown up in a small town." These kinds of responses were rare for American participants.

Choi and Markus (1998) related this finding to the culturally dominant metaphor of a person in East Asian cultures (see also Markus, Kitayama, & Heiman, 1996). People in Eastern cultures often use a "tree" as a metaphor for a person, which emphasizes the endless shaping of internal dispositions by the external environment. For instance, in Korea, a person is believed to be like a white root that takes on the color of the soil in which it grows. If a white root is planted in red soil, it becomes red. (In China, a person is likened to a white silk cloth. If placed in red dye, it becomes red; if placed in green dye, it becomes green.) Once the self is likened to a plant, it is evident that the environment is essential for the development, nourishment, and cultivation of the person.

Another way in which Eastern and Western dispositionism may differ is whether or not the presumed agent is an individual or a group. Morris and his colleagues (Menon, Morris, Chiu, & Hong, 1998) found that whereas East Asians tended to attribute agency to a group more than did Americans, this tendency was reversed for attributions regarding an individual. For example, Hong Kong Chinese explained a scandal in an organization more with respect to group attributes than Americans when the scandal was committed by a group. However, Americans explained the scandal more with respect to individual attributes when the scandal was committed by an individual.

These three pieces of evidence suggest that East Asian dispositionism differs from European American dispositionism in at least two respects: (a) East Asians have a more holistic conception of the person, which includes the situation, and (b) they are more inclined to attribute agency to a group.

Dispositionism, Psychological Essentialism, and Theory of Mind

How can we explain the empirical evidence we have presented that dispositional thinking is cross-culturally widespread, despite the cultural differences just described? Two theoretical considerations point to the likelihood that dispositional thinking is a universal, species-specific mode of reasoning about social behavior. Social behavior is perceived as the observable manifestation of underlying, enduring traits. Thus, personality theories are derived from our belief that there is more to social behavior than just its appearance. This strongly suggests that lay dispositionism may be a form of psychological essentialism, a widely encountered mode of thinking that consists of attributing a hidden essence to a thing or a class of things, which makes the thing or the category what it is (Gelman, Coley, & Gottfried, 1994; Gelman & Hirschfeld, 1998; Medin & Ortony, 1989). Essentialistic thinking has been observed in a wide variety of cultures and is believed to play a role in reasoning in various domains of thought. This includes reasoning about living things (Atran, 1990; Keil, 1989), social categories (e.g., race, ethnicity, and gender) (Allport, 1954; Hirschfeld, 1994, 1995), and personality (Gelman, 1992).

Gelman et al. (1994) suggested the possibility of dispositionism being a form of essentialism. For example, they discussed the striking similarity between biological thinking and dispositional thinking:

> The link between an overt behavior and the trait that explains it is analogous to the link between a biological structure or process and the essence that causes it (Gelman, 1992). Just as the trait of shyness can cause a person to avoid large parties, so does the essence of panda cause it to have black-and-white fur and to eat bamboo. The person and the panda are each hypothesized to have an underlying quality (shyness or panda genes, respectively) that gives rise to certain observable properties as well as other, less obvious ones (beliefs and desires in one case; biological structures and processes in the other). (pp. 355–356)

It is still an open empirical question as to what extent people in different cultures think essentialistically about personality. People in all cultures may essentialize personality compared with other domains that do not support essentialism (e.g., artifacts), but we have evidence suggesting that the strength of essentialism about personality may vary cross-culturally. As we discussed earlier, East Asians have a strong belief in the power of social situations in shaping behavior and personality, and as a result their personality theories are more context bound and malleable (Choi & Markus, 1998; Norenzayan et al., 1998). This may lead to less essentialistic reasoning about individual differences.

Although there is rich cultural variation in folk psychological understanding (for reviews, see Lillard, 1997, 1998), a second reason why dispositionism may be universal is that it may be part of a theory of mind, anchored in belief-desire psychology, which growing evidence indicates to be cross-culturally widespread (Avis & Harris, 1991; D'Andrade, 1987; Flavell, Zhang, Zou, Dong, & Qui, 1983; Gardner, Harris, Ohmoto, & Hamazaki, 1988; Lillard, 1998). Belief-desire psychology consists of interpreting the behavior of others as a function of the joint interaction of beliefs about the world and motivational status with respect to it (Wellman, 1990). On this account, dispositional theories constitute the view that individuals have chronic beliefs and desires across time and place. Thus, dispositions provide frames of regularities that people use to make inferences about the particular preferences, mental states, and behaviors of a person.

Consequences of Cultural Differences in Causal Attributions

The cultural differences in causal attribution have some important implications for other social psychological phenomena. In this section, we focus on the issue of accuracy; susceptibility to situational influences, such as those involved in producing cognitive dissonance; and intercultural contact.

Who Is More Accurate?

The studies we reviewed raise a very important question: Who is more nearly correct? Two different answers can be suggested. One is that Asians may be more correct because they are more sensitive to situational influences on behavior. The other is that we cannot compare accuracy of causal judgments across cultures because the actual power of dispositions versus situations on behavior may indeed differ across cultures. For example, it might be that situations are in general more powerful determinants of behavior in the East than in the West (Argyle, Shimoda, & Little, 1978). However, few studies allow us to make tentative normative judgments. The Jones and Harris attitude attribution paradigm is among them.

As we have already discussed in detail, Choi and Nisbett (1998) and Masuda and Kitayama (1996) found that when the situational constraints were made salient by exposing participants themselves to the same constraints as targets or by making participants themselves impose the constraints on others, Koreans and Japanese, unlike American participants, readily corrected their dispositionist errors to a substantial degree, something that everyone should do in such circumstances. Of course, we cannot know whether Koreans and Japanese are correct in their estimates of the target's attitude, because the target person was a fiction and not a real person. What we can say is this: (a) The Jones and Harris phenomenon has always been taken as evidence that people are insufficiently sensitive to situational pressure when judging another's dispositions, (b) East Asians have proven in several studies to be as susceptible as Americans to the FAE in the basic no-choice condition, (c) the manipulations such as those of Snyder and Jones (1974) and Gilbert and Jones (1986) have always been taken as particularly strong evidence of insensitivity to situational factors, and (d) that manipulations such as those have been proven successful in altering the attributions of East Asians but not of Americans. Thus, although East Asians appear susceptible to the basic attribution error, it is possible to show that the error is lessened or obliterated by salience manipulations that have no effect on Americans. Because the basic Jones and Harris phenomenon has been demonstrated often with East Asians, it seems reasonable to state that there is substantial similarity in the interpretations of Asians and Americans of the basic no-choice condition, but that, when additional factors are superimposed on this condition, Asians respond differently than do Americans. Moreover, these additional factors would not seem to be nearly so susceptible to cultural differences in interpretation as the basic no-choice condition. The Snyder and Jones factors consist simply of requiring participants to go through the same experiences as targets, and the Gilbert and Jones factors consist simply of having one participant choose for another what speech to give. It seems parsimonious to interpret the evidence as a whole to mean that East Asians seem to have an interpretation of the Jones and Harris situation sufficiently similar to that of Americans as to ensure that they show the FAE with regularity but avoid it when the situation is made more salient.

In addition, when participants themselves were exposed to the same powerful situational constraints as the target person, Koreans but not Americans realized that the target person's behavior was no more a true reflection of his attitude than was the case for themselves (Choi & Nisbett, 1998). To assert that the Korean behavior here is not more normatively correct than that of the Americans, it would be necessary to maintain that the actor–observer bias (i.e., the assumption that one does what one does because the situation requires it whereas others do what they do because of their dispositions) is not a bias at all, or at least is not the result of a nonnormative judgment strategy. Neither position seems a very attractive one to uphold. It seems reasonable to assume that other individuals on the average do what they do for the same sorts of reasons as oneself, especially when the situations in which they find themselves appear identical to those for the self. If so, then the discovery that one has done something because of situational constraints ought to be accompanied by the empathetic recognition that another person in the exact same situation has probably acted for the same reasons.

Other support for East Asians' having a more normative approach to causal attribution comes from the prediction study by Norenzayan, Choi, and Nisbett (1998) demonstrating that Korean participants used base-rate information more than Americans when making predictions about a single individual. It might be argued that this simply shows that base rates are taken into account more in societies in which situations are relatively powerful determinants of behavior, but two points argue against this. First, it was the participants' own personally generated base rates rather than base rates offered by the experimenters that were available for incorporation into predictions. Second, consistent with our contention that it is situational salience that is crucial for showing differences between East Asians and Americans, Koreans used base rates more than Americans only when their attention was called to them just before making their predictions about a single case.

Work by Cha and Nam (1985) makes a similar point. Their Korean participants, unlike American participants, made very substantial use of consensus information when making attributions about actors' behavior. Although it is possible to argue that Koreans are more capable of converting consensus information into knowledge about the power of a given situation merely because they live in societies in which situations are more powerful, this scarcely seems a likely explanation for most of McArthur's (1972) actual vignettes. It strains credulity, for example, to assert that many people tripping over a woman's feet is better evidence of the difficult situation confronting her partners in East Asia than in America or that many people being enthralled by a painting is better evidence of the painting's beauty in East Asia than in America. Rather, it seems more plausible simply to assume that Asians actually are capable of making use of base-rate and situational power information for purposes of explanation and prediction more than Americans, at least when these are made salient.

Thus, a tentative conclusion is that East Asian folk psychology, in the domain of causal attribution at least, may better correspond to the findings and theory of scientific psychology than does American folk psychology. Obviously, though, a great deal more evidence, from a much wider variety of experimental and ethnographic paradigms, is necessary before we can be confident about this assertion. Finally, it should be noted that East Asian folk psychology may not always produce superior judgments. Choi (1998) found that Korean college students displayed stronger hindsight bias, or a mistaken confidence that the knowledge they have acquired was already possessed, than their American counterparts did in making judgments about others' situationally determined behavior. Choi (1998) argued that, precisely because Koreans were highly sensitive to situational constraints on behavior,

they could easily explain it and mistakenly felt that they could have predicted it.

Susceptibility to Situational Influence

What might be the possible benefits of East Asian situationism, other than simply making more accurate attributions? We suspect that their acute sensitivity to situational influence on behavior may enable East Asians to avoid, ironically, undesirable situational influences on their own behavior.

Nisbett and Wilson (1977) demonstrated that people often are not aware of the role of a variety of causal factors influencing their judgments and behavior. For example, in the Latané and Darley (1968) bystander intervention study, hardly any participants were aware that their behavior was influenced by the presence of others. Nisbett and Wilson conjectured that this effect of bystanders on helping behavior might have not occurred if those participants had been aware of such an influence. This suggests an interesting but paradoxical benefit of East Asian lay theory. If East Asians believe their mental processes and behavior are strongly influenced by situational factors, they may be less vulnerable to situational influences. They may achieve this goal by either changing situations (situational control) or adjusting their behavior (behavioral control). For example, if they believe that television violence causes aggression, they may prohibit any television show containing severe violence (situational control). Similarly, faced with a large number of bystanders they may consciously try to help the victim as quickly as possible (behavioral control). This reasoning also implies that Americans, contrary to their belief in personal autonomy and control, might actually be more vulnerable to situational influence precisely because they are not aware of it.

Another reason why Asians may be less susceptible to situational influence than Americans is because of cultural differences in self-serving beliefs about vulnerability to pernicious situational influence. Westerners believe that others are easily affected by undesirable situational influence, such as pornography, but they themselves are not (Davison, 1983). They thus believe that others should be constrained from watching pornography but not they themselves. This illusory belief may drive them to be more vulnerable to the undesirable situational influences than they otherwise would be. However, as suggested by Choi and Nisbett (1998), because Asians may view themselves and others as equally vulnerable to situational influence, it is more likely that they will try to avoid any possibility of exposure to those situations for themselves.

East Asians' greater awareness of situational constraints on their behavior has interesting implications for cognitive dissonance phenomena. According to the attributional analysis of cognitive dissonance (Ross, 1977), people show the dissonance effect partly because they are not aware that their counterattitudinal behavior was caused by situational constraints. For example, participants in the Festinger and Carlsmith (1959) experiment were aware that the small monetary incentive (i.e., $1) was not the reason they behaved in a manner contradicting their true opinions. They failed to recognize the causal role of the social situation—they experimenters' subtle pressure—and consequently had to infer that they must hold opinions corresponding to their behavior. Had they been aware of the role of the social situation, the dissonance effect might have not occurred.

If this attributional analysis of the dissonance effect is correct, we should expect that the forced compliance effect may be less prevalent in East Asian cultures. East Asians may be well aware that their behavior is sometimes caused by situational constraints, and thus they do not need to seek internal causes, thereby generating the dissonance effect. At least two studies failed to obtain the dissonance effect for East Asians in the forced compliance paradigm. Choi, Choi, and Cha (1992) failed to replicate the dissonance effect in the Festinger and Carlsmith (1959) forced-compliance paradigm for Korean participants, and Hiniker (1969) failed to find the dissonance effect in the same paradigm for Chinese.

Cultural Misunderstandings

Many books have been written about the social and historical aspects of cross-cultural encounters, but research exploring the psychological processes that create and sustain misunderstandings between cultures has begun only recently. One attributional source of such misunderstandings seems likely to be important: It occurs when two individuals from different cultures attribute an actor's behavior to divergent causes: situational versus dispositional.

One example of such a cultural divergence between Westerners and Easterners is in perceptions of dishonesty or inauthenticity. Westerners believe that an actor's behavior reveals something about that actor's personality, regardless of the presence of situational constraints on the actor's behavior. Thus, any inconsistency in the actor's behavior may be taken as evidence for that person's dishonesty or inauthenticity, another dispositional inference! East Asians, in contrast, realize that people behave differently under different circumstances. They anticipate more variability in the actor's behavior than Americans do and are more willing to attribute this variability to situational constraints, such as role obligations and social pressure (Fiske et al., 1998; Marriott, 1990). It is easy to see how this may result in cultural misunderstandings. Indeed, cultural guidebooks are full of anecdotes concerning misunderstandings of just this sort between Asians and Westerners.

Another example that illustrates how cultural divergence in attribution may lead to cross-cultural misunderstanding is in the meaning of public debate in East versus West. Public debate plays a central role in virtually every aspect of public life in the West; Western dispositionist culture considers the public expression of one's private beliefs and convictions essential grist for the mill of the "marketplace of ideas." In contrast to the West, public debate has been virtually nonexistent in East Asia (Becker, 1986; Galtung, 1981; Lloyd, 1990; Nakamura, 1964/1985). Although the roots of this cultural difference span sociocultural, historical, linguistic, and even religious factors, another reason may be situationism of East Asian folk psychology. Because East Asians live in a world fundamentally defined by social relationships, they are expected to know a great deal about the people around them, including their beliefs and attitudes. Therefore, not only is public argumentation considered unnecessary, but it is actively shunned because engaging in it means to stand out, risk public disagreement, and lose favor with fellow members of society (Becker, 1986; Galtung, 1981). Thus, the consequences of divergent psychologies go beyond mere cultural curiosities and beyond even the generation of errors to be a breeding ground for cultural misunderstandings.

As Shinobu Kitayama observed, even the concept of a "lively discussion" does not actually exist in Asia. One consequence of

this divergence is that Easterners are likely to mistakenly see rudeness on the part of Westerners in their dealings with others. Another consequence is that Westerners are likely to perceive Easterners as secretive, less than forthcoming, and "inscrutable."

References

Abel, T. M., & Hsu, F. L. K. (1949). Some aspects of personality and Chinese as revealed by the Rorschach Test. *Journal of Projective Techniques, 13,* 285–301.

Abimbola, W. (1973). The Yoruba concept of human personality. In *La notion de personne en Afrique noire* (pp. 73–89). Paris: Editions du Centre Nationale de la Recherche Scientifique.

Allport, G. (1954). *The nature of prejudice.* Cambridge, MA: Addison-Wesley.

Argyle, M., Shimoda, K., & Little, B. (1978). Variance due to persons and situations in England and Japan. *British Journal of Social and Clinical Psychology, 17,* 335–337.

Aronson, E., Wilson, T. D., & Akert, R. M. (1994). *Social psychology: The heart and the mind.* New York: HarperCollins.

Atran, S. (1990). *Cognitive foundations of natural history.* New York: Cambridge University Press.

Atran, S. (1993). Core domains versus scientific theories: Evidence from systematics and Itza-Maya folkbiology. In L. Hirschfeld & S. Gelman (Eds.), *Domain specificity in cognition and culture* (pp. 316–340). New York: Cambridge University Press.

Avis, J., & Harris, P. L. (1991). Belief-desire reasoning among Baka children. *Child Development, 62,* 460–467.

Becker, C. B. (1986). Reasons for the lack of argumentation and debate in the far east. *International Journal of Intercultural Relations, 10,* 75–92.

Bond, M. H., Nakazato, H., & Shiraishi, D. (1975). Universality and distinctiveness in dimensions of Japanese person perception. *Journal of Cross-Cultural Psychology, 6,* 346–357.

Buehler, R., Griffin, D. W., & Ross, M. (1994). Exploring the planning fallacy: Why people underestimate their task completion times. *Journal of Personality and Social Psychology, 67,* 366–381.

Cha, J.-H., & Nam, K. D. (1985). A test of Kelley's cube theory of attribution: A cross-cultural replication of McArthur's study. *Korean Social Science Journal, 12,* 151–180.

Chandler, T. A., Shama, D. D., Wolf, F. M., & Planchard, S. K. (1981). Multiattributional causality: A five cross-national samples study. *Journal of Cross-Cultural Psychology, 12,* 207–221.

Cheung, F. M., Leung, K., Fang, R. M., Song, W. Z., Zhang, J. X., & Zhang, J. P. (1996). Development of the Chinese Personality Assessment Inventory (CPAI). *Journal of Cross-Cultural Psychology, 27,* 181–199.

Cheung, F. M., Leung, K., Law, J. S., & Zhang, J. X. (1996, August). *Indigenous Chinese personality constructs.* Paper presented at the XXVI International Congress of Psychology, Montréal, Canada.

Chiu, C.-Y., Hong, Y.-Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology, 73,* 19–30.

Chiu, L.-H. (1972). A cross-cultural comparison of cognitive styles in Chinese and American children. *International Journal of Psychology, 8,* 235–242.

Choi, I. (1998). *The cultural psychology of surprise: Causal theories, contradiction, and epistemic curiosity.* Unpublished doctoral dissertation, University of Michigan.

Choi, I., Choi, K. W., & Cha, J.-H. (1992). *A cross-cultural replication of Festinger and Carlsmith (1959).* Unpublished manuscript, Seoul National University, Seoul, Korea.

Choi, I., & Markus, H. R. (1998). *Implicit theories and causal attribution East and West.* Unpublished manuscript, University of Michigan.

Choi, I., & Nisbett, R. E. (1998). Situational salience and cultural differences in the correspondence bias and in the actor–observer bias. *Personality and Social Psychology Bulletin, 24,* 949–960.

Choi, I., Nisbett, R. E., & Smith, E. E. (1997). Culture, category salience, and inductive reasoning. *Cognition, 65,* 15–32.

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

Crittenden, K. S. (1996). Causal attribution processes among the Chinese. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 263–279). Hong Kong: Oxford University Press.

D'Andrade, R. (1987). A folk model of the mind. In D. Holland & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 112–148). New York: Cambridge University Press.

Davison, W. P. (1983). The third person effect in communication. *Public Opinion Quarterly, 47,* 1–15.

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 41,* 417–440.

Duff, K. J., Newman, L. S., & Walsko, C. (1995). *Culture and spontaneous trait inference.* Paper presented at the 67th Annual Meeting of the Midwestern Psychological Association, Chicago.

Dunning, D., Griffin, D. W., Milojkovic, J., & Ross, L. (1990). The overconfidence effect in social prediction. *Journal of Personality and Social Psychology, 58,* 568–581.

Dweck, C. S., Hong, Y.-Y., & Chiu, C.-Y. (1993). Implicit theories: Individual differences in the likelihood and meaning of dispositional inference. *Personality and Social Psychology Bulletin, 19,* 644–656.

Elvin, M. (1985). Between the earth and heaven: Conception of the self in China. In M. Carrithers, S. Collins, & S. Lukes (Eds.), *The category of the person: Anthropology, philosophy, history* (pp. 156–189). New York: Cambridge University Press.

Erdley, C. A., & Dweck, C. S. (1993). Children's implicit personality theories as predictors of their social judgments. *Child Development, 64,* 863–878.

Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology, 58,* 203–211.

Fiske, A. P., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. T. Gilbert, S. T., Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 915–981). New York: McGraw-Hill.

Flavell, J. H., Zhang, X.-D., Zou, H., Dong, Q., & Qui, S. (1983). A comparison of the appearance-reality distinction in the People's Republic of China and the United States. *Cognitive Psychology, 15,* 459–466.

Galtung, J. (1981). Structure, culture, and intellectual style: An essay comparing Saxonic, Teutonic, Gallic, and Nipponic approaches. *Social Science Information, 6,* 817–856.

Gardner, D., Harris, P. L., Ohmoto, M., & Hamazaki, T. (1988). Japanese children's understanding of the distinction between real and apparent emotion. *International Journal of Behavioral Development, 11,* 203–218.

Gelman, S. A. (1992). Children's conception of personality traits—Commentary. *Human Development, 35,* 280–285.

Gelman, S. A., Coley, J. D., & Gottfried, G. M. (1994). Essentialist beliefs in children: The acquisition of concepts and theories. In L. A. Hirschfeld & S. A. Gelman (Eds.), *Mapping the mind: Domain specificity in cognition and culture* (pp. 341–365). New York: Cambridge University Press.

Gelman, S. A., & Hirschfeld, L. A. (1998). *How biological is essentialism?* Unpublished manuscript, University of Michigan.

Gidron, D., Koehler, D. J., & Tversky, A. (1993). Implicit quantification of personality traits. *Personality and Social Psychology Bulletin, 19,* 594–604.

Gilbert, D. T., & Jones, E. E. (1986). Perceiver-induced constraint: Interpretations of self-generated reality. *Journal of Personality and Social Psychology, 50,* 269–280.

Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin, 117,* 21–38.

Goldberg, L. R. (1990). An alternative "description of personality": The

Big-Five structure. *Journal of Personality and Social Psychology, 59,* 1216–1229.

Guthrie, G. M., & Bennet, A. B. (1971). Cultural differences in implicit personality theory. *International Journal of Psychology, 6,* 305–312.

Hallahan, M., Lee, F., & Herzog, T. (1997), It's not just whether you win or lose, it's also where you play the game: A naturalistic, cross-cultural examination of the positivity bias. *Journal of Cross-Cultural Psychology, 28,* 768–778.

Hallowell, A. (1976). *Contributions to anthropology: Selected papers of A. Irving Hallowell.* Chicago: University of Chicago Press.

Heider, F. (1958). *The psychology of interpersonal relations.* New York: Wiley.

Hiniker, P. J. (1969). Chinese reactions to forced compliance: Dissonance reduction or national character? *Journal of Social Psychology, 77,* 157–176.

Hirschfeld, L. A. (1994). Is the acquisition of social categories based on domain-specific competence or knowledge transfer? In L. A. Hirschfeld & S. A. Gelman (Eds.), *Mapping the mind: Domain specificity in cognition and culture* (pp. 201–233). New York: Cambridge University Press.

Hirschfeld, L. A. (1995). Anthropology, psychology, and the meanings of social causality. In D. Sperber, D. Premack, & A. Premack (Eds.), *Causal cognition: A multidisciplinary debate* (pp. 313–350). Oxford, England: Oxford University Press.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values.* Beverly Hills, CA: Sage.

Hsu, F. L. K. (1981). *American and Chinese: Passage to differences* (3rd ed.). Honolulu: University of Hawaii Press.

Humphrey, R. (1985). How work roles influence perception: Structural-cognitive processes and organizational behavior. *American Sociological Review, 50,* 242–252.

Ip, G. W. M., & Bond, M. H. (1995). Culture, values, and the spontaneous self-concept. *Asian Journal of Psychology, 1,* 29–35.

Jones, E. E. (1979). The rocky road from acts to dispositions. *American Psychologist, 34,* 107–117.

Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. *Advances in Experimental Social Psychology, 2,* 219–266.

Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology, 3,* 1–24.

Jones, E. E., & Nisbett, R. E. (1972). The actor and the observer: Divergent perceptions of the causes of behavior. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: perceiving the causes of behavior* (pp. 79–94). Morristown, NJ: General Learning Press.

Kashima, Y., Siegel, M., Tanaka, K., & Kashima, E. S. (1992). Do people believe behaviors are consistent with attitudes? Towards a cultural psychology of attribution processes. *British Journal of Social Psychology, 31,* 111–124.

Keil, F. (1989). *Concepts, kinds, and cognitive development.* Cambridge, MA: Bradford Book/MIT Press.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (pp. 192–242). Lincoln: University of Nebraska Press.

Kendall, M. G. (1962). *Rank correlation methods.* London: Griffin.

Kitayama, S., & Masuda, T. (1997). *Cultural psychology of social inference: The correspondence bias in Japan.* Unpublished manuscript, Kyoto University.

Krull, D. S. (1993). Does the grist change the mill? The effect of the perceiver's inferential goal on the process of social inference. *Personality and Social Psychology Bulletin, 19,* 340–348.

Krull, D. S., Loy, M., Lin, J., Wang, C.-F., Chen, S., & Zhao, X. (1996). *The fundamental attribution error: Correspondence bias in independent and interdependent cultures.* Unpublished manuscript, University of Missouri—Columbia.

Kuhn, M. H., & McPartland, R. (1954). An empirical investigation of self attitudes. *American Sociological Review, 19,* 68–76.

Kunda, Z., & Nisbett, R. E. (1986). The psychometrics of everyday life. *Cognitive Psychology, 18,* 195–224.

La Fontaine, J. S. (1985). Person and individual: Some anthropological reflections. In M. Carrithers, S. Collins, & S. Lukes (Eds.), *The category of the person: Anthropology, philosophy, history* (pp. 123–140). New York: Cambridge University Press.

Latané, B., & Darley, J. M. (1968). Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology, 10,* 215–221.

Lee, F., Hallahan, M., & Herzog, T. (1996). Explaining real life events: How culture and domain shape attributions. *Personality and Social Psychology Bulletin, 22,* 732–741.

Leung, K., Cheung, F. M., Zhang, J. X., Song, W. Z., & Dong, X. (1997). The five factor model of personality in China. In K. Leung, Y. Kashima, U. Kim, & S. Yamaguchi (Eds.), *Progress in Asian social psychology* (Vol. 1, pp. 231–246). Singapore: Wiley.

Lévi-Strauss, C. (1962). *Totemism.* Boston: Beacon Press.

Lewin, K. (1935). The conflict between Aristotelian and Galilean modes of thought in contemporary psychology. *Journal of General Psychology, 5,* 141–177.

Lillard, A. S. (1997). Other folks' theories of mind and behavior. *Psychological Science, 8,* 268–274.

Lillard, A. S. (1998). Ethnopsychologies: Cultural variations in theories of mind. *Psychological Bulletin, 1,* 3–32.

Lloyd, G. E. R. (1990). *Demystifying mentalities.* New York: Cambridge University Press.

Lutz, C. (1985). Ethnopsychology compared to what? Explaining behavior and consciousness among the Ifaluk. In G. M. White & J. Kirkpatrick (Eds.), *Person, self and experience: Exploring Pacific ethnopsychologies* (pp. 35–79). Berkeley: University of California Press.

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

Markus, H. R., Kitayama, S., & Heiman, R. J. (1996). Culture and basic psychological principles. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 857–915). New York: Guilford Press.

Marriott, M. (1990). *India through Hindu categories.* Newbury Park, CA: Sage.

Masuda, T., & Kitayama, S. (1996). *Correspondence bias in Japan.* Unpublished manuscript, Kyoto University, Japan.

McArthur, L. Z. (1972). The how and what of why: Some determinants and consequences of causal attribution. *Journal of Personality and Social Psychology, 13,* 733–742.

McCloskey, M. (1983). Intuitive physics. *Scientific American, 248,* 122–130.

McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist, 52,* 509–516.

McCrae, R. R., Costa, P. T., & Yik, S. M. (1996). Universal aspects of Chinese personality structure. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 189–207). New York: Oxford University Press.

Medin, D., & Ortony, A. (1989). Psychological essentialism. In S. Vosniadou & A. Ortony (Eds.), *Similarity and analogical reasoning* (pp. 179–195). New York: Cambridge University Press.

Menon, T., Morris, M. W., Chiu, C.-Y., & Hong, Y.-Y. (1998). *Culture and the perceived autonomy of individuals and groups: American attributions to personal dispositions and Confucian attributions to group.* Unpublished manuscript, Stanford University.

Michotte, A. E. (1952). *The perception of causality.* New York: Basic Books.

Miller, J. G. (1984). Culture and the development of everyday social explanation. *Journal of Personality and Social Psychology, 46,* 961–978.

Miller, J. G. (1987). Cultural influences on the development of conceptual differentiation in person description. *British Journal of Developmental Psychology, 5,* 309–319.

Morris, M. W., Nisbett, R. E., & Peng, K. (1995). Causal understanding across domains and cultures. In D. Sperber, D. Premack, & A. J. Premack (Eds.), *Causal cognition: A multidisciplinary debate* (pp. 577–612). Oxford, England: Oxford University Press.

Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology, 67,* 949–971.

Munro, D. (1985). *Individualism and holism: Studies in Confucian and Taoist values.* Ann Arbor: University of Michigan, Center for Chinese Studies.

Nagashima, N. (1973). A reversed world: Or is it? In R. Horton & R. Finnegan (Eds.), *Modes of thought* (pp. 92–111). London: Faber & Faber.

Nakamura, H. (1985). *Ways of thinking of Eastern peoples.* Honolulu: University of Hawaii Press. (Original work published 1964)

Needham, J. (1962). *Science and civilization in China. Vol. 4: Physics and physical technology.* Cambridge, England: Cambridge University Press.

Newman, L. S. (1991). Why are traits inferred spontaneously? A developmental approach. *Social Cognition, 9,* 221–253.

Newman, L. S. (1993). How individualists interpret behavior: Idiocentrism and spontaneous trait inference. *Social Cognition, 11,* 243–269.

Newman, L. S. (1996). Trait impressions as heuristics for predicting future behavior. *Personality and Social Psychology Bulletin, 22,* 395–411.

Newman, L. S., & Uleman, J. S. (1989). Spontaneous trait inference. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 155–188). New York: Guilford Press.

Nisbett, R. E., & Borgida, E. (1975). Attribution and the psychology of prediction. *Journal of Personality and Social Psychology, 32,* 932–943.

Nisbett, R. E., Caputo, C., Legant, P., & Maracek, J. (1973). Behavior as seen by the actor and as seen by the observer. *Journal of Personality and Social Psychology, 27,* 154–164.

Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 8,* 231–259.

Norenzayan, A., Choi, I., & Nisbett, R. E. (1998). *Eastern and Western folk psychology and the prediction of behavior.* Manuscript submitted for publication.

Norenzayan, A., Nisbett, R. E., & Smith, E. E. (1998). *Rule based vs. memory based category learning East and West.* Unpublished manuscript, University of Michigan.

Olivier De Sardan, J. P. (1973). Personalité et structures sociales (a propos des Songhays) [Personality and social structures (regarding the Songhays)]. In *La notion de personne en Afrique noire* (pp. 421–445). Paris: Editions du Centre Nationale de la Recherche Scientifique.

Peng, K., & Nisbett, R. E. (1997). Cross-cultural similarities and differences in the understanding of physical causality. In M. Shield (Ed.), *Proceedings of conference on culture and science.* Frankfort: Kentucky State University Press.

Piedmont, R. L., & Chae, J. H. (1997). Cross-cultural generalizability of the five-factor model of personality: Development and validation of the NEO-PI-R for Koreans. *Journal of Cross-Cultural Psychology, 28,* 131–155.

Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review, 86,* 61–79.

Rhee, E., Uleman, J. S., Lee, H. K., & Roman, R. J. (1996). Spontaneous self-descriptions and ethnic identities in individualist and collectivistic cultures. *Journal of Personality and Social Psychology, 69,* 142–152.

Ross, L. (1977). The intuitive scientist and his shortcomings. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 174–220). New York: Academic Press.

Ross, L., Amabile, T. M., & Steinmetz, J. L. (1977). Social roles, social control, and biases on social-perception processes. *Journal of Personality and Social Psychology, 35,* 485–494.

Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology.* New York: McGraw-Hill.

Shweder, R. A., & Bourne, E. J. (1982). Does the concept of the person vary cross-culturally? In A. J. Marsella & G. White (Eds.), *Cultural conceptions of mental health and therapy* (pp. 97–137). Boston: Reidel.

Shweder, R. A., & Bourne, E. J. (1991). Does the concept of the person vary cross-culturally? In R. A. Shweder (Ed.), *Thinking through cultures: Expeditions in cultural psychology* (pp. 113–155). Cambridge, MA: Harvard University Press.

Snyder, M., & Jones, E. E. (1974). Attitude attribution when behavior is constrained. *Journal of Experimental Social Psychology, 10,* 585–600.

Spelke, E. S., Phillips, A., & Woodward, A. L. (1995). Infants' knowledge of object motion and human action. In D. Sperber, D. Premack, & A. J. Premack (Eds.), *Causal cognition: A multidisciplinary debate* (pp. 44–78). Oxford, England: Oxford University Press.

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

Triandis, H. C. (1995). *Individualism and collectivism.* Boulder, CO: Westview Press.

Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism: Cross-cultural perspectives on self–in group relationships. *Journal of Personality and Social Psychology, 59,* 1006–1020.

Uleman, J. S. (1987). Consciousness and control: The case of spontaneous trait inferences. *Personality and Social Psychology Bulletin, 13,* 337–354.

Vallone, R. P., Griffin, D. W., Lin, S., & Ross, L. (1990). Overconfident prediction of future actions and outcomes by self and others. *Journal of Personality and Social Psychology, 58,* 582–592.

Wellman, H. M. (1990). *The child's theory of mind.* Cambridge, MA: MIT Press.

Whiting, B. B. (1996). The effect of social change on concepts of the good child and good mothering: A study of families in Kenya. *Ethos, 24,* 3–35.

Winter, L., & Uleman, J. S. (1984). When are social judgments made? Evidence for the spontaneousness of trait inferences. *Journal of Personality and Social Psychology, 47,* 237–252.

Yan, W., & Gaier, E. L. (1994). Causal attributions for success and failure: An Asian-American comparison. *Journal of Cross-Cultural Psychology, 25,* 146–158.

Yang, K. S., & Bond, M. H. (1990). Ethnic affirmation by Chinese bilinguals. *Journal of Cross-Cultural Psychology, 11,* 411–425.

Yik, M. S. M., & Bond, M. H. (1993), Exploring the dimensions of Chinese person perception with indigenous and important constructs: Creating a culturally balanced scale. *International Journal of Psychology, 28,* 75–95.

Zarate, M. A., & Uleman, J. S. (1994). *Lexical decision evidence that Anglos do and Chicanos do not make spontaneous trait inferences.* Unpublished manuscript, University of Texas at El Paso.

Received August 29, 1997
Revision received July 13, 1998
Accepted July 17, 1998 ■