

Human behavior under uncertainty has been an important area of inquiry in social, decision making, and cognitive psychology for the past few decades. The current research examined the role of different types of information in enhancing individuals' confidence in making social predictions in a variety of uncertain situations across cultures. Chinese and American participants were given either individuating information (e.g., accomplishments) or relational information (e.g., social groups) about a target with whom they would have to interact. They were then asked for judgments regarding the usefulness of the information, as well as estimates of their confidence in making predictions about their own and the other person's behavior in four hypothetical situations. The results indicated that for U.S. subjects, individuating information was deemed much more useful and enhanced confidence in making social predictions, as compared with relational information. The reverse was true for the Chinese participants. Implications for the individualism-collectivism theory and cross-cultural research on social prediction are discussed.

CULTURE AND SOCIAL PREDICTION

The Role of Information in Enhancing Confidence in Social Predictions in the United States and China

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Human behavior under uncertainty has been an important area of inquiry in social, decision making, and cognitive psychology for the past few decades. Much research in this area has examined how people actually behave when faced with uncertain events, which is then compared to how people should behave according to normative models of expected utility (Hogarth, 1980; Kahneman, Slovic, & Tversky, 1982). Other research has examined behavior in the face of social uncertainty, which refers to one's uncertainty regarding the psychological states and behaviors of others, as well as one's own psy-

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chological states and behaviors in the context of social interaction (Berger, 1979; Berger & Calabrese, 1975; Clatterbuck, 1979).

Although the source of uncertainty differs in these two traditions, an assumption underlying both is that humans attend to uncertainty in the environment, are motivated to reduce uncertainty, and employ a variety of behavioral alternatives in the service of this goal (Lipshitz & Strauss, 1997; Sniezek & Spurlock, 1995). One alternative available to reduce or eliminate uncertainty is to *search for information*. In a social context, this requires determining what information is relevant and important to know about other people to enhance one's confidence in making social predictions.

THE CURRENT RESEARCH

The current research focuses on understanding this process, namely the way in which people search for information to enhance confidence in social predictions. In particular, it seeks to examine the *types* of information that enhance confidence in making predictions in a variety of uncertain social situations. The general proposition, which will be more fully developed below, is that the type of information perceived to be useful for social prediction will be contingent on the nature of the surrounding sociocultural context, and, in particular, the independent or interdependent nature of the culture (Markus & Kitayama, 1991; Triandis, 1989). Next, the pertinent literature on culture will be reviewed, and its relevance for confidence in social prediction will then be discussed.

CULTURE

Culture has been very broadly defined as the human-made part of the environment (Herskovits, 1955), consisting of both objective elements (i.e., tools, roads, housing), and subjective elements, (i.e., a "group's characteristic way of perceiving its social environment" [Triandis, 1972, p. 3]). Subjective culture includes many aspects, including attitudes, categorizations, norms, roles, and values of a particular group (Triandis, 1972). Moreover, elements of subjective culture are often interrelated and form unique cultural syndromes (Triandis, 1989) that reflect basic issues that societies must confront in regulating human activity (Schwartz, 1994).

Individualism and Collectivism

One fundamental issue that societies must confront is the nature of the relationship between the individual and the group, which has been broadly referred to as individualism-collectivism. This theme has also been referred to as self-emphasis and collectivity (Parsons, 1949), *Gesellschaft* and *Gemeinschaft* (Toennies, 1957), individualism and collaterality (Kluckhohn & Strodtbeck, 1961), and agency and community (Bakan, 1966). Whereas there are subtle differences in the meanings of these terms, they all relate to a theme which contrasts the extent to which people are autonomous individuals versus embedded in groups (Schwartz, 1994). It is now conceived as one of the primary dimensions by which cultures can be differentiated (Hofstede, 1980; Triandis, 1995), and there is increasing evidence that the nature of the self varies along this cultural dimension (Markus & Kitayama, 1991; Triandis, 1989).

In particular, in individualistic cultures, independent self-construals become highly developed (Markus & Kitayama, 1991; Triandis, 1989). The self is construed as separate and detached from collectives, and the cultural ideal is to be separate from others and express one's uniqueness (Markus & Kitayama, 1991; Shweder & Bourne, 1984). This requires attending to the private self, or cognitions about one's inner attributes (e.g., attitudes, preferences, abilities) (Greenwald & Pratkanis, 1984; Triandis, 1989), which become the primary units of consciousness (Markus & Kitayama, 1991). The self, therefore, is generally defined more in terms of *individuating* information than in terms of social or relational information, and individuals have more elaborated self-knowledge than knowledge about others (Kitayama, Markus, Tummala, Kurokawa, & Kato, 1990).

By contrast, in collectivistic cultures, the interdependent self becomes highly developed. In contrast to the independent self, the interdependent self is defined in terms of relationships and is conceived as part of a collective. As Markus and Kitayama (1991) explain, "experiencing interdependence entails seeing oneself as part of an encompassing social relationship and recognizing that one's behavior is determined by, contingent on, and, to a large extent, organized by what the actor perceives to be the thoughts, feelings, and actions of *others* in the relationship" (p. 226). The cultural ideal is to maintain relatedness and fit in with relevant others (Markus & Kitayama, 1991; Shweder & Bourne, 1984). Achieving this ideal requires attending to the collective self, or cognitions that concern one's relations with others and how others view the self (Greenwald & Pratkanis, 1984; Triandis, 1989). The self, therefore, is generally defined more in terms of relational information than in terms of individuating information.

Culture and Social Explanation

Most pertinent to the current research is that independent and interdependent conceptions of the self, which are generally found in individualistic and collectivistic cultures, respectively, influence the way in which information about the self and others in the social environment is accessed, organized, and retrieved. This occurs through an “education of attention,” in which members of a given culture are sensitized toward “adaptively relevant information” in order to interact effectively with others (Bond & Forgas, 1984; Gibson, 1979; McArthur & Baron, 1983). In this respect “what people in one culture need to perceive may be different from what those in another culture need to perceive” (McArthur & Baron, 1983, p. 219).

In support of these notions, a decade of research has illustrated that people in individualistic and collectivistic cultures attend to different information in the process of explaining their own and others’ behavior after it has occurred (see Semin & Zwiener, 1997, for a review). In individualistic cultures, one’s behavior is explained more by personal attitudes than by social norms, whereas the reverse is true in collectivistic cultures (Bontempo & Rivero, 1992; Davidson, Jaccard, Triandis, Morales, & Diaz-Guerro, 1976). Moreover, attributions for one’s success often focus on internal attributes in individualistic cultures, whereas they focus on external, relational attributes, such as social support, in collective cultures (Kashima & Triandis, 1986).

Likewise, explanation of others’ behavior is also predicated on information about internal attributes in individualistic cultures, whereas it is predicated on relational attributes in collectivistic cultures. For instance, in individualistic cultures, attributions of other focus on internal attributes or personality traits, whereas in collective cultures, attributions focus on the social context (Miller, 1984; Morris & Peng, 1994). Indeed, people expect other people’s behavior to be consistent with internal attributes in individualistic cultures, although this is not expected in collectivistic cultures (Kashima, Siegel, Tanaka, & Kashima, 1992).

In sum, within the process of social explanation, individuating information is particularly salient in individualistic cultures, whereas relational information is particularly salient in collectivistic cultures.

Culture and Social Prediction

Whereas much research has examined cultural differences in explanations of behavior after it has occurred, the role of culture in the process of *social prediction* has been largely unexamined. The question that naturally arises is, What types of information are deemed most useful for making social predictions across cultures? This question is particularly important given that one’s

own behavior is often guided by one's expectations and predictions about the behavior of others in any given situation (Sniezek, May, & Sawyer, 1990; Tyszka & Grzelak, 1976). Based on the above notion that culture highlights different information in the social environment, it is argued that individuating and relational information will play different roles in enhancing confidence in predictions in social situations in individualistic and collectivistic cultures. Generally speaking, we expect that when faced with uncertain situations, people are likely to judge that they can better predict the behavior of others, as well as predict how they should behave if the information about the target person is *culturally* relevant.

More specifically, given that in individualistic cultures the self is defined in terms of internal attributes and is focused on individuating information in the social environment, it is likely that actors will also rely on individuating information (e.g., accomplishments) of a target to gain confidence in predicting how another person will behave. Likewise, given that relational information (e.g., social groups) is paramount in defining the self and understanding others in collectivistic cultures, it is likely that actors will seek and rely on this source of information to enhance confidence in social predictions. The predictions in this study were as follows:

Hypothesis 1. In individualistic cultures (i.e., the United States), individuating information (i.e., accomplishments, interests, beliefs) will enhance confidence in making social predictions more than relational information.

Hypothesis 2. In collectivistic cultures (i.e., China), relational information (i.e., social status, social groups, and relations) will enhance confidence in making social predictions more than individuating information.

OVERVIEW OF CURRENT RESEARCH

The current research was designed to explicitly examine the notion that different types of information will enhance confidence in making predictions in uncertain social situations within individualistic and collectivistic cultures. We investigated these processes in the United States and China, which have consistently been found to vary on the dimension on individualism-collectivism (Morris & Peng, 1994; Triandis, 1995). Operationally, we expected cultural differences on judgments of the *overall usefulness* of individuating and relational information for reducing uncertainty in social situations. We also expected cultural differences in the degree to which individuating and relational information enhance confidence in making *social predictions* (i.e., predictions regarding how the other person will behave in uncertain situations) and *self predictions* (i.e., prediction of one's own behaviors in

uncertain situations). Given that the degree to which another is trustworthy is likely to be an important source of uncertainty in social situations, we also explored whether different information would enhance confidence in *trust predictions* across cultures. Statistically, we expected interactions between culture and type of information on these judgments.

Finally, to ensure generalizability of the test of the theoretical notions advanced, we examined the effects of different information on confidence in prediction in a broad range of uncertain social situations: at work, at a party, in the neighborhood, and with a potential romantic partner. Chinese and American investigators who were familiar with the samples in this study chose these situations from a larger pool of social situations as having relevance for our samples in both China and the United States.

METHOD

PARTICIPANTS

One hundred forty-two university students participated in this study. Participants included 86 American students from a large Midwestern university in the United States and 56 Chinese students from two universities in the People's Republic of China. All students volunteered to take part in the study, and the American students received credit toward a requirement for an introduction to psychology course.

DESIGN AND PROCEDURE

The design was a 2 (culture: United States and China) \times 2 (information: individuating and relational) \times 4 (situation: work, party, neighbor, romance). The first two factors were between subjects, and the last factor was within subjects.

All participants were asked to read about their involvement in four hypothetical uncertain social situations. These situations involved meeting a new coworker, with whom one would have to work very closely; meeting a potential romantic partner, with whom one may want to get acquainted; meeting a new neighbor, with whom one would have to live in close proximity; and meeting a well-known colleague at a party, upon whom one would like to make a favorable impression. All of the scenarios involved the formation of a relationship with another person who would be introduced through a mutual friend or associate. In particular, after a description of each scenario, participants were told that they would be able to obtain some information about the

person from a friend, but because of a lack of time, they would only be able to obtain a limited amount of information. All of these situations were described at a general level, since the specific details of such situations would be likely to vary across cultures. The appendix presents the scenarios. All materials were translated into Mandarin Chinese and were backtranslated into English to check for any discrepancies. Chinese participants read Chinese materials and responded in Chinese, whereas American participants read English materials and responded in English.

Manipulation of information. Each participant was randomly assigned to either the relational or the individuating information conditions. In the relational condition, participants were told, Suppose that your friend was only able to give you the following information:

1. Whom the person has close relations with (family/friends).
2. The social groups to which the person belongs.
3. The person's social status (social class).

In the individuating condition, participants were told, Suppose that your friend was only able to give you the following information:

1. The person's accomplishments.
2. The person's interests.
3. The person's beliefs.

These items were chosen by both Chinese and American investigators as illustrative of relational and individuating information in both cultures. These manipulations were repeated for all four situations described previously.¹

MEASURES

All participants were then asked to estimate their confidence to make predictions given this information. To examine a wide range of confidence judgments, participants rated the overall usefulness of the information for reducing uncertainty in the situation, the extent to which the information enhanced confidence in making predictions about how the other would behave (social prediction), the extent to which the information enhanced confidence in making predictions about the other's trustworthiness (trust prediction), as well as the extent to which the information enabled prediction about how one should behave (self-prediction). Finally, we asked participants questions regarding their overall satisfaction with the information. These questions were asked

after each of the four social situations described previously (i.e., work, party, neighbor, romance).

For overall usefulness, participants were asked two questions: "How useful is the information for you to have before interacting with the stranger?" and "How valuable is the information in helping you cope with the uncertainty in the situation?" Both questions were based on 1 (*not at all useful/valuable*) to 9 (*very useful/valuable*) scales, coded in the positive direction. Responses to these items were correlated across situations (average alpha in the United States = .79; in China = .76), and thus, were averaged in each culture.

For social prediction, participants were asked about their confidence in their ability to predict the other's behavior with one item: "Given this information, how confident are you in your ability to predict how the stranger will behave?" on a scale from 0 (*total guess*) to 100 (*total certainty*).

For self-prediction, participants were given two items that assessed their confidence in their ability to predict their own behavior in the situation: "Given this information, how confident are you in your ability to predict how you should act in this situation?" and "Given this information, how confident are you in your ability to predict what you should say in this situation?", both of which were based on scales from 0 (*total guess*) to 100 (*total certainty*). Responses to these items were correlated across situations (average alpha in the United States = .85; in China = .74) and were averaged in each culture for the analysis.

For trust prediction, participants were asked two items: "Given this information, how confident are you that you know if you will be able to trust this person?" and "Given this information, how confident are you in your ability to predict how trustworthy the other person is?" both of which were rated on scales from 0 (*total guess*) to 100 (*total certainty*). These items were correlated across situations (average alpha in the United States = .85; in China = .71) and were averaged in each culture.

Finally, satisfaction with information was based on responses to one item, "How satisfied are you with having this information?" with responses ranging from 1 (*not at all satisfied*) to 9 (*totally satisfied*).

RESULTS

All responses were submitted to a 2 (culture: China or the United States) \times 2 (information: individuating or relational) \times 4 (situation type: work, romance, party, neighbor) multivariate analysis of variance (MANOVA) with repeated

measures on the last factor. Below, results for each of the five dependent measures relevant to the hypotheses are described.

Usefulness of information. MANOVA results for the composite item regarding the usefulness of the information for each situation revealed a significant two-way interaction for culture and information, $F(1, 136) = 39.00$, $p < .0001$. A priori contrasts were performed to examine the nature of this interaction. Given that the three-way interaction of Culture \times Information \times Situation was not significant, Wilk's Lambda = .95, $F(3, 134) = 2.36$, $p > .10$, within-subject results were averaged across the four situations. The results demonstrated that the U.S. participants perceived individuating information to be more useful ($M = 6.53$, $SD = 1.25$) than relational information ($M = 4.68$, $SD = 1.11$), $F(1, 83) = 50.17$, $p < .0001$, thus providing support for Hypothesis 1. In support of Hypothesis 2, Chinese participants perceived relational information to be more useful ($M = 6.17$, $SD = 0.96$) than individuating information ($M = 5.41$, $SD = 1.37$), $F(1, 53) = 5.40$, $p < .02$. Moreover, U.S. participants perceived individuating information to be more useful than did Chinese participants, $F(1, 76) = 16.41$, $p < .0001$, whereas Chinese participants found relational information to be more useful than the U.S. participants, $F(1, 60) = 22.61$, $p < .0001$.

Additionally, there were some other significant two-way interactions not related to the hypotheses, including an interaction between Situation \times Information, Wilk's lambda = .83, $F(3, 134) = 9.16$, $p < .0001$, which revealed that relational information had more usefulness in the neighbor situation than in the other situations. There was also a significant Culture \times Situation interaction, Wilk's lambda = .93, $F(3, 134) = 3.46$, $p < .02$, which demonstrated that overall, U.S. participants perceived greater usefulness in the neighbor and romance situations than the work and party situations, whereas the reverse was the case for the Chinese participants.²

Social prediction. MANOVA results for the item regarding the participants' confidence in their abilities to predict the behavior of the other person in each situation revealed a significant main effect for Culture, $F(1, 138) = 19.83$, $p < .0001$, that was qualified by a significant two-way interaction of Culture \times Information, $F(1, 138) = 29.83$, $p < .0001$. Again, given the lack of a significant three-way interaction of Culture \times Information \times Situation, within-participant responses were averaged across the four situations and the means were examined using a priori contrasts to discern the nature of the interaction.

Specifically, U.S. participants had greater confidence in their abilities to predict the behavior of the other person when given individuating infor-

mation ($M = 49.86$, $SD = 20.62$) than when given relational information ($M = 30.12$, $SD = 15.85$), $F(1, 84) = 28.76$, $p < .0001$. By contrast, Chinese participants had greater confidence in their ability to predict the behavior of the other person when given relational information ($M = 59.24$, $SD = 12.55$) than when given individuating information ($M = 46.90$, $SD = 14.73$), $F(1, 54) = 7.27$, $p < .01$. Interestingly, there was very little difference in social prediction confidence between the U.S. sample and the Chinese sample when each was provided with individuating information, $F(1, 78) = .59$, $p > .44$. However, the results suggest that relational information did inspire much greater confidence in the Chinese sample than it did in the U.S. sample, $F(1, 60) = 43.41$, $p < .0001$.

As with the information usefulness variable discussed previously, there was a significant two-way interaction of Situation \times Information, Wilk's lambda = .91, $F(3, 126) = 4.41$, $p < .01$. Inspection of the Situation \times Information cell means indicated that in the neighbor situation the individuating information inspired the least confidence, whereas relational information inspired the most confidence relative to other situations.

Prediction of self. MANOVA results for the composite of the two items regarding confidence in one's ability to predict how one should behave in each situation revealed a significant main effect for Culture, $F(1, 136) = 4.33$, $p < .04$, which was qualified by a significant two-way interaction of Culture \times Information, $F(1, 136) = 21.43$, $p < .0001$. The three-way Culture \times Information \times Situation interaction was not significant, so the within-participant responses were averaged across the four situations. The results indicated that U.S. participants had greater confidence in their abilities to predict their own behavior when given individuating information about the other person ($M = 66.23$, $SD = 19.16$) than when given relational information ($M = 48.29$, $SD = 19.55$), $F(1, 84) = 22.38$, $p < .0001$. This provides additional support for Hypothesis 1.

In support of Hypothesis 2, Chinese participants had greater confidence in their abilities to predict their own behavior when given relational information about the other person ($M = 68.77$, $SD = 9.52$) than when given individuating information ($M = 58.45$, $SD = 16.59$), $F(1, 52) = 4.65$, $p < .03$. Relational information produced much higher confidence in the Chinese sample than in the U.S. sample, $F(1, 60) = 20.22$, $p < .0001$. Conversely, individuating information produced somewhat higher confidence in the U.S. sample than in the Chinese sample, $F(1, 76) = 3.66$, $p > .06$, although the difference was not statistically significant at alpha .05. This pattern of results is consistent with those obtained for usefulness of information.³

Prediction of trust. MANOVA results for the composite of the two items regarding confidence in one's ability to predict a target's trustworthiness revealed a significant main effect for Culture, $F(1, 112) = 38.65, p < .0001$, that was qualified by a significant two-way interaction of Culture \times Information, $F(1, 112) = 6.03, p < .02$. Once again, the three-way Culture \times Information \times Situation interaction was not significant, so the within-participant responses were averaged across the four situations and examined using a priori contrasts. The results indicated that U.S. participants had greater confidence in their abilities to trust the other person when given individuating information about the other person ($M = 34.53, SD = 23.09$) than when given relational information ($M = 19.81, SD = 16.16$), $F(1, 77) = 11.86, p < .001$. This provides additional support for Hypothesis 1.

However, Chinese participants' levels of confidence in trust did not differ between the two types of information, individuating ($M = 48.79, SD = 15.37$) or relational ($M = 52.69, SD = 15.09$), $F(1, 35) = .39, p > .53$. This sample had substantially greater confidence in their abilities to trust the other person than did the U.S. sample, for either type of information, individuating, $F(1, 58) = 6.70, p < .01$, and especially notable, for relational, $F(1, 54) = 39.84, p < .0001$.⁴ There were no other significant two-way interactions associated with this variable.

Satisfaction with information. MANOVA results for the item regarding satisfaction with the information in each situation revealed a significant two-way interaction of Culture \times Information, $F(1, 138) = 22.89, p < .0001$. The three-way Culture \times Information \times Situation interaction was not significant, so the within-participant responses were averaged across the four situations and examined using a priori contrasts. The results indicated that U.S. participants who received individuating information reported greater satisfaction ($M = 6.12, SD = 1.39$) than those who received relational information ($M = 4.40, SD = 1.15$), $F(1, 84) = 39.67, p < .0001$, thus providing support for Hypothesis 1. Chinese participants who received relational information were somewhat more satisfied ($M = 5.40, SD = 1.22$) than those who received individuating information ($M = 5.03, SD = 1.19$), $F(1, 54) = 1.15, p > .06$, supportive of Hypothesis 2. Among those receiving individuating information, the U.S. sample was more satisfied than the Chinese sample, $F(1, 78) = 14.41, p < .001$. Similarly, among those receiving relational information, the Chinese sample was more satisfied, $F(1, 60) = 9.21, p < .003$. These results were consistent with the findings for the previous four dependent measures, supporting both hypotheses.⁵

Finally, there was a significant two-way Situation \times Information interaction, Wilk's lambda = .82, $F(3, 136) = 9.78, p < .0001$, for satisfaction.

Examination of this interaction for the combined U.S. and Chinese samples revealed that those who were provided with relational information were most satisfied in the neighbor situation, compared with the other three situations. Conversely, those receiving individuating information were least satisfied with it in the neighbor situation, compared with the other situations.

DISCUSSION

The purpose of this study was to examine the role of information in enhancing confidence in making social predictions across situations and cultures. Based on previous research on individualism and collectivism, we predicted that individuating information would be perceived to have higher usefulness and would be better able to enhance confidence in prediction in the United States, whereas relational information would be perceived to have higher usefulness and would be better able to enhance prediction in China. The results of this study found consistent support for these predictions, suggesting that different information enhances confidence in social predictions across cultures, and furthermore, that this is invariant across different situations.

Specifically, in the United States, an individualistic culture, information regarding another's internal attributes, such as beliefs and accomplishments, affords much greater perceived usefulness in helping one deal with uncertain situations, enhances one's confidence in predicting how others will behave and their degree of trustworthiness, and enhances one's confidence in predicting how one should act across a variety of social situations, as compared to relational information. By contrast, in China, a collectivistic culture, a different pattern of information usage emerges. In particular, relational information, such as information about another's social groups and social status, affords more perceived confidence in social situations, including overall usefulness for coping with uncertain situations and confidence in making predictions about one's own behavior and other's behavior, as compared to individualized information.

More generally, the results of this study support the notion that what people *need to know* to be able to effectively interact with others is contingent on the sociocultural context in which they are embedded (McArthur & Baron, 1983). This suggests that in everyday discourse practices, people from different cultures may differentially disclose individuating and relational information in the process of managing uncertainty, which would be an interesting topic for investigation. Indirect support for these notions can be found in Gudykunst (1983), who demonstrated that people in high context cultures,

which tend to be more collectivistic (Singelis & Brown, 1995), have a tendency to ask more questions about a stranger's background than people in low context cultures, which tend to be more individualistic. This also suggests that in the context of intercultural interactions, it is possible that individuals may be confused and even disturbed by the nature of the information being disclosed (e.g., one's social status and relations versus one's accomplishments), without an understanding that the information is culturally relevant from each participant's point of view.

Interestingly, our data do not suggest that individuating information is not at all useful in enhancing confidence in other cultures. Indeed, when comparing the effect of individuating information across the samples, Chinese and American participants only differed slightly in the degree to which this information enhanced confidence in self and social predictions. On the other hand, there were large cultural differences in the degree to which relational information enhanced confidence in social predictions. For example, when comparing the degree to which participants were confident in making self and other predictions when given relational information about a target, U.S. participants consistently rate their confidence much lower than Chinese participants. However, confidence in making self- and social predictions after being given individuating information about a target was only slightly higher in the United States than in China. In general, then, the use of relational information differentiated the U.S. and Chinese participants more in their confidence to make social predictions.

IMPLICATIONS FOR RESEARCH ON INDIVIDUALISM AND COLLECTIVISM

The results of this study are consistent with emerging "coexistence models" of individualism-collectivism (Kim, 1994; Kluckhohn & Strodtbeck, 1961; Toennies, 1957). Specifically, according to coexistence models, both interdependent and independent aspects of the self can coexist within a person and within cultures. Kim (1994), for instance, uses the distinctions between *tatame* (principles, rules and conventions) and *honne* (true intentions, or the inner self), both of which are important in Japanese culture (Doi, 1981), as an example of this model. Likewise, in a recent analysis of individualism and collectivism in China, Ho & Chui (1994) found that although a large percentage of Chinese proverbs focus on collectivistic beliefs, there are also a significant proportion of proverbs devoted to individualistic beliefs, especially related to self-reliance. Indeed, in the context of India, Sinha and Tripathi (1994) also argue that both individualistic and collectivistic orientations may coexist. Thus, unlike previous conceptualizations of culture, these

authors suggest that inner opinions, interests, and needs are significant aspects of the self in collectivistic cultures, and that individualism and collectivism are multidimensional (cf. Gelfand, Triandis, & Chan, 1996).

The current research also adds to this increasing evidence and suggests a more complex and multidimensional view of the self in China. Specifically, whereas relational information is more important in China as compared to the United States, the use of individuating information did not differentiate the samples as much. Thus, this research further supports a coexistence model and suggests that future research and theorizing on individualism-collectivism should avoid treating the constructs as unidimensional at the individual level.

IMPLICATIONS FOR RESEARCH ON SOCIAL PREDICTION

The current research illustrates that culture does play an important role in understanding judgments under uncertainty and enhancing social prediction. It also suggests that existing studies on social prediction, especially those that are predicated on the use of individualized information, would benefit from this perspective. For instance, in the domain of managerial decision making, what sources of information do managers and other decision makers in different cultures rely on in making predictions? Consistent with the current research, there is preliminary evidence that U.S. managers rely more on their own individualized experience when making decisions regarding uncertain work events, as compared to managers in China, who rely more consistently on rules and policies (Smith, Peterson, & Wang, 1996).

Likewise, the domain of selection decision making would also benefit from the current perspective. For instance, the literature on personnel selection, which has been largely developed and tested in the West (Erez & Earley, 1993) focuses almost exclusively on individualized attributes, such as prospective employees' knowledge, skills, and abilities, in predicting their future behavior. Indeed, many theoretical and methodological advancements in this area are based on the assumption that internal attributes are predictive of future behavior. The current research suggests that other sources of information—those which are relational in nature—may also be important in understanding the practice of selection decision making in other cultural contexts.

Other research on social prediction which is predicated on individualized personal attributes should be reexamined given the results of this study. For example, in a variety of social and nonsocial contexts, people in the United States have been found to display various shortcomings of human inference, in that they rely on biased samples of data. Dunning, Griffin, Milojkovic, and Ross (1990) demonstrated that U.S. participants often make overconfident

predictions about themselves and others, and consistently ignore base rate information. Similarly, Vallone, Griffin, Lin, and Ross (1990) demonstrated that self-predictions, like social predictions, are consistently overconfident and reflect an ignorance of base rate information among U.S. samples. These authors argue that the overconfidence demonstrated in these studies is due to the phenomenon of "dispositionalism," or the tendency to overestimate the extent to which human behavior is governed by broad personal (individualizing) dispositions and to underestimate the role of situational factors in predicting behavior (Nisbett & Ross, 1980). Indeed, in their set of well-planned studies on social prediction, participants consistently ignored base rate information in favor of distinctive, dispositional information. However, the present research suggests that these biases in prediction may be based on a view of the self that is more prevalent in individualistic contexts. Likewise, our emerging understanding of culture and social prediction suggests that evidence for egocentric comparisons in social predictions, which are caused by overreliance of individualized information (Dunning & Hayes, 1996), may also be culture specific.

APPENDIX

Work Situation:

Imagine that you are working at an organization. One of your coworkers is leaving the organization, and another person whom you do not know has been chosen to replace your coworker. You have always had a good relationship with your present coworkers and you want to know about the new coworker. You will be meeting your new coworker to have lunch so the two of you can get acquainted. On your way to meet this person, you meet another employee who worked closely with your new coworker.

Neighbor:

Imagine that you are living in the place where you grew up. Your closest neighbor is moving, and comes over to say goodbye. The person has been a good neighbor to you, and you hope that the person who moves in will be a good neighbor also. Your old neighbor must leave in a few minutes. Your old neighbor has met the person who will be moving in, and has gotten to know the person fairly well. You only have a few minutes, but you would like your neighbor to tell you about the person who will be moving in.

Romance:

A friend of yours knows someone who may be romantically interested in you. Because you are not involved with anyone seriously at the present, you might like to meet this person. Your friend tells you that you might meet this person tonight at an event that you have planned on attending. You would like your friend to tell you about this person, but your friend is going to a meeting and can only talk with you for a few minutes.

Party:

You have been invited to attend a social party. The day of the party, you learn that a particular person will attend who is an authority in your field and has many influential contacts. Even though you know of this person by professional reputation, you have never met. You would like to make a favorable impression on this person. By doing so, you hope that the person will want to introduce you during the subsequent months to important people in your field whom you desire to meet. Just before you go to the function, you happen to meet a friend on the street whom you tell about the party. By coincidence this friend knows the person you want to impress. You only have a few minutes to ask your friend about this person.

NOTES

1. With respect to the manipulation of information, we deliberately kept the information at a general level, given that there are many different types of beliefs, accomplishments, and types of social groups, the specifics of which are likely to vary tremendously across cultural contexts. As we were only interested in the differential impact of relational versus individuating information on confidence in making social predictions, we manipulated three types of information in each category, which were illustrative of these general constructs without giving specific content information.

2. Because the inclusion of four situations was intended to discern more general patterns of relations between culture and preferences for types of information, and the theoretical formulations in this paper are not directed at situations per se, we will not attempt to interpret results that are situation-specific unless they are part of a three-way interaction with culture and information type.

3. It is important to note that although different information enhanced confidence in self-predictions in China and the United States, the phrasing of the questions for this variable still results in interpretational ambiguities with respect to whether the information enhanced confidence in their ability to know the norms for how they should act, or alternatively, their ability to decide how they would want to act. Nevertheless, the findings clearly illustrate that confidence in predicting one's own behavior is also affected by different information across cultures.

4. These data represent a unique pattern. There is reason to believe that trust is greater under conditions of dependence (Sniezek & Van Swol, manuscript submitted for publication). If there is a greater perception of interdependence in collectivistic cultures, then this may explain why the Chinese sample feel better able to predict trust, regardless of information type.

5. As in all cross-cultural studies, researchers need to be concerned with the possibility that response sets are influencing the results. In the present research, we did not have a large heterogeneous item pool, and as a result, were unable to compare standardized data to unstandardized data, as suggested by Leung, Bond, and others. However, it is highly unlikely that response sets can account for the effects presented, given that they represent cross-over interactions (i.e., responses varying by condition and by cultural group) rather than main effects between cultural groups, were predicted *a priori*, and were grounded in culture theory.

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