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# Perceiver-induced constraint and attitude attribution in Japan and the US: A case for the cultural dependence of the correspondence bias☆

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**Abstract**

After observing someone's behavior, individuals often infer a corresponding attitude in the person even when the behavior is socially constrained. Convincing evidence for this phenomenon (called the correspondence bias) has been obtained in the perceiver-induced constraint paradigm, where participants ask a target person to read a pre-written attitudinal statement, and after observing the target comply, estimate the target's real attitude. This paradigm maximally highlights the causal role of the participants in producing the target's behavior. In Experiment 1, Americans exhibited a reliable correspondence bias under these conditions, but Japanese did not show any such bias. In Experiment 2, both Japanese and Americans inferred strong essay-consistent attitudes in a standard no-choice condition, where the target allegedly argued for a position that had been assigned to her. Implications for the cultural dependence of social cognition are discussed.


## Introduction

Numerous studies over the last quarter century have shown that after observing a behavior by another person, people almost always infer that the behavior was produced by some internal disposition (Gilbert & Malone, 1995). This effect, called the correspondence bias (Jones, 1979) or the fundamental attribution error (Ross, 1977), suggests that people often fail to take into account pertinent situational or contextual information when making social judgments.

This failure is most clearly illustrated in the *perceiver-induced constraint paradigm* developed by Gilbert and Jones (1986). In that paradigm, the experimenter gives participants (called inducers) a number of alternative attitudinal statements and tells them to ask another person (a target) to read statements that express one of two positions. After observing the target comply with their request, the inducers are asked to estimate the true attitude of the target. From the inducers' point of view, it should be clear that the target's act was constrained by their own request. An important finding, then, is that even under these conditions, inducers often attribute to the target an attitude that corresponds to the statements (Gilbert & Jones, 1986; see also Miller, 1976). This finding provides especially convincing evidence for a cognitive bias that favors dispositional attributions.

Our purpose here was to make a cross-cultural assessment of the correspondence bias using the perceiver-induced constraint paradigm. This effort was motivated by recent evidence on cross-cultural variation in causal attribution. For example, North Americans often emphasize dispositional factors, such as personality traits and attitudes, when they explain the behavior of others, but many Asians, such as Chinese (Morris & Peng, 1994) and Indians (Miller, 1984), refer to situational factors instead (see Choi, Nisbett, & Norenzayan, 1999, for a review). Drawing on this literature, we predicted that the correspondence bias would be substantially weaker in Asia than in North America.

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*Correspondence bias and culture*

Several researchers have already tested this prediction. Although their findings have failed to support the prediction, that failure may be due to certain features of the procedures used in this work. One study used the perceiver-induced constraint procedure. Most of the studies, however, used what may be called the standard no-choice procedure. All of these studies will be examined in turn.

*Perceiver-induced constraint procedure.* In a recent series of experiments, Van Boven, Kamada, and Gilovich (1999) tested people's intuitions about dispositional inferences. Although their purpose was not to examine cross-cultural differences in the correspondence bias, their results are still relevant. Van Boven and his colleagues prepared 20 questions, each of which had both an "altruistic" and a "selfish" answer.[1] Each participant (the questioner) read each question to another participant (the responder) via an intercom. The questioner constrained the responder by signaling him or her to read one of the two answers for each question. These signals were pre-arranged by the researcher so that the responders' answers were predominantly selfish or predominantly altruistic. After listening to the responder answer the 20 questions, the questioner formed a personality impression of the responder. Both Americans and Japanese were studied (in separate experiments). The results showed that a questioner's impressions were more negative when a responder's answers were predominantly selfish rather than altruistic. This effect was equally strong for both Japanese and Americans.

At first glance, this result suggests that the correspondence bias is equally strong for both Japanese and Americans, even in a situation involving perceiver-induced constraint. However, the procedure used by Van Boven et al. (1999) differed substantially from the perceiver-induced constraint paradigm (e.g., Gilbert & Jones, 1986). First, evaluative impressions (rather than attitude attributions) served as the main dependent variable. Second, naïve participants (the responders) read the designated answers.[2] These procedural deviations rendered the cross-cultural finding difficult to interpret. Specifically, the researchers may have inadvertently confounded the content of what the responders said with their likability. For example, the vocal tones of the responders may have subtly changed in accordance with what they said. Responders may have used harsher tones, and thus seemed more cynical or less generous and less smooth, when they read selfish answers than when they read altruistic answers. If so, then the questioners might have formed more negative impressions of the responders in the selfish condition than in the altruistic condition, even if they completely discounted the verbal content of the statements. Hence, this research does not provide unequivocal evidence regarding the predicted cross-cultural difference in correspondence bias using the perceiver-induced constraint paradigm.

*Standard no-choice procedure.* More informative for our purposes are several cross-cultural experiments that used a standard no-choice procedure. Participants in these experiments were presented with an essay that supported one or another position and then asked to infer the author's true attitude towards the issue. They were told that the author had been assigned a position to defend before writing the essay (Jones & Harris, 1967). Although this procedure is often used (Gilbert & Malone, 1995), it entails a crucial interpretive ambiguity. Even though the position taken in the essay was assigned, the author might still endorse that position personally. This ambiguity is amplified because the essays used in these experiments are typically well-composed and reasonably persuasive. This may make it seem plausible to participants that the target person would defend the assigned position (Miyamoto & Kitayama, 2002). Moreover, the social constraint information in these experiments is typically provided in a brief paragraph, making it much less salient than the essay itself (Choi & Nisbett, 1998). This may lead participants to infer that the researcher expects them to make more use of the essay information in their attitude attributions (Schwarz, 1994). To summarize, the standard no-choice procedure is flawed because the stimulus essay may seem diagnostic of real attitudes and social constraint is insufficiently salient. For one or both of these reasons, participants may make a strong correspondent inference, regardless of their psychological propensity toward dispositional attributions.

There is some support for this analysis. When the standard no-choice procedure is used, a strong correspondence bias is often found, even in East Asia (e.g., Toyama, 1998). Moreover, this bias is usually no weaker than the one found for North Americans (Choi & Nisbett, 1998, Experiment 1; Krull et al., 1999, Experiment 1; and Miyamoto & Kitayama, 2002, Experiment 1). Some analysts have used such evidence to argue for the universality of the correspondence bias. Krull et al. (1999), for example, argued that the correspondence bias will always occur, so long as people are given the explicit goal of inferring the dispositions of others. According to this argument, Asians may be sensitive to

[1] The following are examples of a question and the two answers for it.
*Question:* "Do you consider yourself to be sensitive to other people's feeling?"
*Selfish answer:* "I think there are too many sensitive, 'touch-feely' people in the world already. I see no point in trying to be understanding of another if there is nothing in it for me."
*Altruistic answer:* "I try to be sensitive to others' feeling all the time. I know it is important to have people that one can turn to for sympathy and understanding. I try to be that person whenever possible."

[2] This procedural feature is perfectly suitable for the purpose of examining the researchers' own original research questions.

situational information (as revealed in other types of attributional tasks—see Morris & Peng, 1994), but their sensitivity is weak enough to be overridden by explicit processing goals. Given the ambiguities associated with the standard no-choice procedure, however, it is entirely possible that East Asians will show a weaker correspondence bias than North Americans if a better paradigm is used, even when they are given the goal of inferring dispositions in others.

Two recent experiments that used an improved no-choice paradigm have shown that the predicted cross-cultural difference in correspondence bias does exist. Specifically, Miyamoto and Kitayama (2002) found that the correspondence bias was significantly weaker for Japanese than for Americans when the stimulus essay was made less persuasive. And Choi and Nisbett (1998) found that the correspondence bias was much weaker for Koreans than for Americans when the social constraint was made more salient.

## Experiment 1

The primary goal of Experiment 1 was to determine whether the findings from research by Choi and Nisbett (1998) and by Miyamoto and Kitayama (2002) could be extended to the perceiver-induced constraint paradigm. Remember that in this paradigm, stimulus essays do not reflect the attitudes of the person who reads them (because they were written by someone else), and social constraint is made very salient. In such a paradigm, the correspondence bias should be weaker among East Asians than among Americans. To avoid problems of interpretive ambiguity like those noted for the Van Boven et al. (1999) research, we examined attitude attributions, rather than personality impressions, using stimulus materials that were standardized for all participants.

A subsidiary goal for Experiment 1 was to compare judgments of inducers with those of observers. Self- and other-perceptions are often different because different sorts of information are available to the people who make them (Jones & Nisbett, 1987). One important feature of the perceiver-induced paradigm, however, is that situational constraints are made equally salient to both inducers and observers. Under these conditions, their attributional judgments should be no different (Gilbert & Jones, 1986; Ross, Lepper, & Hubbard, 1975). Accordingly, we expected the predicted cross-cultural difference to occur equally for inducers and observers.

### Method

*Participants.* Seventy-seven Japanese undergraduates (48 males, 29 females) at Kyoto University, Japan, and 82 American undergraduates (37 males, 45 females) at the University of Michigan, USA, participated in the experiment to fulfill course requirements. Participants were scheduled to come to the laboratory in pairs. If one person in a pair failed to show up, an experimental confederate acted as a fellow participant. One Japanese participant, who did not complete the questionnaire, was excluded from the data analyses. Preliminary analyses did not show any strong or systematic gender effects in the results. Hence, we will not discuss gender further.

*Stimuli.* The stimulus essays are presented in Table 1. The Japanese version was written first and then translated into English. Back translation was performed to ensure semantic equivalence between the Japanese and the English versions. We created four videotapes, with the help of two female confederates, one Japanese and the other American, who read the essay in front of a video camera. These women were trained to read both the pro and the con essays in a business-like fashion without expressing any emotions. Every care was taken to equate any conceivable paralinguistic cues (posture, facial expression, vocal tone, and pitch) in all the videotapes that were developed.

*Procedure.* Upon arrival, each pair of participants was told that the experiment concerned how people infer the attitudes of others from their behaviors. They were led to believe that a third participant was waiting in a recording studio. Their task was to watch a videotape of this person reading an essay and then infer his or her real attitude. Thus, participants were given the explicit processing goal of attitude inference—which Krull et al. (1999) suggested is a sufficient condition for correspondence bias. Next, the experimenter told participants that one of them (designated as "inducer") should choose the essay the third participant would read. He or she would then read the chosen essay in front of the video camera. The other participant in the pair (designated as "observer") was just asked to observe his or her fellow participants. The experimenter then randomly assigned the two participants to the roles of inducer and observer.

At this point, the experimenter presented two envelopes to both participants. They were told that each envelope contained an essay either favoring or opposing nuclear experiments by the French in the Mururoa Coral. The experimenter then asked the inducer to choose one of the two envelopes. The envelopes offered no clue about which essay each of them contained. This procedure was performed to randomize the assignment of participants to the two essay-position conditions. After the inducer made a choice, both participants were allowed to open the envelopes and inspect the two essays. At this point, the experimenter collected the envelope chosen by the inducer. The participants were then asked to wait quietly for 10 min. After 10 min, the experimenter returned with a videotape. The videotape showed a female student (target) reading the chosen essay.

Table 1
Essays used in Experiment 1 and Experiment 2

*The pro-French nuclear testing essay*

French nuclear bomb experiments were carried out in the Mururoa Coral Reef, and environmentalists quickly organized a protest movement against it. I can't stand such irresponsible protest movements. Similar protests have even been carried out in Japan [in the US]; however, I believe that these people are too emotional and have too narrow of a domestic view; they don't have a worldwide viewpoint. The French government states that conducting these nuclear experiments were essential to maintaining peace in Europe. I think that we should be aware that the world peace is maintained by the force of these nuclear bombs. To my mind, the protest movement against French products and the petition movement to gather resistance against the French were stupid behaviors. In addition, the French government stated that this experiment would not affect the because damage to the environment, sooner or later, people will avoid these kinds of experiments because an international treaty will eventually forbid such nuclear bomb experiments. The French government said that the main purpose of these experiments is to get data for future simulation research so as not to execute further bomb experiments. I think the Tahitians were exaggerating the problem. This time, many environmentalist and neighboring islanders have gone to Mururoa Coral Reef and tried to infiltrate the experimental area using their ships. I think this was a serious crime. I feel that this was a good example of the environmental conservation in excess. The Japanese [The US] government should act logically, not emotionally, as the New Zealand government did

*The anti-French nuclear testing essay*

French nuclear bomb experiments were carried out in Mururoa Coral Reef. I think that such experiments are serious crimes and I can't stand it. Several protest movements were being conducted even in Japan [the US]. I've attended these meetings to prevent this devastating action. The French government stated that these experiments were essential to maintaining peace in Europe. However, I think this kind of idea is out-dated and that the French government is using these violent tests to maintain their advantage in Europe. I have participated in the protest movement against French products and petitioned whenever I can. Other people should participate actively in these actions as well. In addition, the French government stated that these experiments didn't damage the environment. However, I don't believe it. A French conductor who is against the French policy, stated that the French nuclear bomb experiments can be seen as analogous to murder, and said sarcastically, "This is my last chance. Please let me kill somebody." He also stated "If the experiments are necessarily important, we should carry them out in Paris." The Tahitians neighborhood was endangered. Many environmentalist groups and neighboring islanders have gone to Mururoa Coral Reef and tried to infiltrate the experimental area. I think that we should cry out against these ferocious experiments. The Japanese [the US] government should manifest anti-experiment action in conjunction with the New Zealand government

The participants were asked to watch the videotape and infer the attitude of the person shown there toward the French nuclear experiment (1 = extremely against, 15 = extremely in favor). They were also asked how much constraint they thought was being imposed on that person (1 = not at all, 15 = extremely). In addition, they estimated the attitude of the average student in their university on the issue (1 = extremely against, 15 = extremely in favor), and their own attitude (using the same scale). Estimates of the average student's attitude, as well as personal attitudes, were negative in both cultures. Although responses of both kinds were somewhat more negative on average in Japan than in the US, they bore no relationship with attitudes estimated for the target person. Hence, we will not discuss them further. Finally, the participants were debriefed and dismissed. They showed no suspicion about the procedures, nor could anyone guess our research hypotheses.

### *Results and discussion*

We first examined the perception of social constraint. A 2 (Culture: Japanese vs. Americans) × 2 (Condition: inducer vs. observer) × 2 (Essay Position: pro vs. anti) ANOVA performed on the perceived constraint ratings showed no significant effects. In particular, there was no significant difference between the American and Japanese means ($M$s = 7.90 vs. 6.67), $F(1, 148) = 3.57$, $p > .05$.

Next, attitudes estimated for the target were analyzed within a 2 (Culture: Japanese vs. Americans) × 2 (Condition: inducer vs. observer) × 2 (Essay Position: pro vs. anti) ANOVA. Both the main effect of essay position and the interaction between essay position and culture were significant, $F(1, 151) = 10.72$, $p < .001$ and $F(1, 151) = 7.12$, $p < .01$, respectively. No other effects were significant. The pertinent means are summarized in Table 2. As predicted, Japanese showed a weaker correspondence bias than did Americans in the inducer condition. The same cross-cultural difference was found in the observer condition, again as predicted. When we combined the two conditions, the correspondence bias was strong for Americans, $t(151) = 4.26$, $p < .001$, but weak for Japanese, $t < 1$. The weak correspondence bias among Japanese is consistent with the hypothesis that Asians have little or no cognitive bias favoring dispositional attributions.[3] They were quite prepared to discount essay content as long as there was a good reason to do so. Hence, the correspondence bias among Japanese found by Van Boven et al. (1999) may have been an experimental artifact.

[3] Note that all four of the means for Japanese were on the negative side of the issue, indicating that even participants exposed to a positive essay attributed a negative attitude to the target person. This finding is consistent with the overall conclusion that Japanese discounted essay content. The only clue they seemed to use in attributing attitudes was the base rate—the overall likelihood of negative vs. positive attitudes in the population. Our participants inferred that the average student would have a negative attitude.

Table 2
Attitude attribution in the inducer and observer conditions for American and Japanese participants

| Culture | American participants | | | | Japanese participants | | | |
|---|---|---|---|---|---|---|---|---|
| Condition | Inducer | | Observer | | Inducer | | Observer | |
| Essay | *M*(*SD*) | *N* | *M*(*SD*) | *N* | *M*(*SD*) | *N* | *M*(*SD*) | *N* |
| Pro-essay Attribution | 8.17(2.32) | 24 | 8.18(3.43) | 20 | 5.55(2.72) | 20 | 6.90(3.06) | 20 |
| Anti-essay Attribution | 5.61(2.97) | 18 | 5.63(2.70) | 20 | 6.26(2.21) | 19 | 5.67(1.85) | 18 |
| Difference *t* | 3.04* | | 2.98* | | −1.58 | | .67 | |

All $p$ values are based on two-tailed tests.
* $p < .005$.

## Experiment 2

The results of Experiment 1 would seem even more convincing if we showed correspondent inferences among Japanese under conditions where they might *not* fully discount essay content. In Experiment 2, we addressed this issue by using the standard no-choice procedure. In that procedure, essay content is less likely to be discounted because the target person might willingly defend the assigned position, the social constraint is less salient than the essay content, or both. We therefore predicted a strong correspondent inference for both Japanese and Americans.

We also ran a free-choice condition, in which participants were told that the target person wrote the essay herself after freely choosing the position she preferred. The main interest here was to ensure that the essays read by the target speakers in the two cultures were comparable in persuasiveness. To the extent that we succeeded at this, there should be an equally strong correspondent inference in both Japan and the US. Again, preliminary analyses did not show any strong or systematic gender effects, so we will not discuss gender further.

### *Methods*

*Participants and procedure.* Ninety-two Japanese undergraduates (54 males, 38 females) at Kyoto University, Kyoto, Japan and 60 American undergraduates (30 males, 30 females) at the University of Michigan, USA, participated in the experiment to fulfill course requirements. The participants were randomly assigned to either a standard no-choice condition or to a free-choice condition.

Upon arrival, participants were told that the experiment concerned attitude inferences and that they would be watching a videotape of another person reading an essay about French nuclear testing in the Mururoa Coral. In the no-choice condition, participants were told that this person had been asked to write an essay supporting a position assigned to her. They were explicitly told that she had no choice in this matter. In the free-choice condition, participants were told that the person on the videotape had been asked to write an essay after freely choosing either a positive or a negative position on the French testing issue. After watching the videotape, participants estimated the speaker's true attitude toward the French nuclear testing (1 = extremely against, 15 = extremely in favor). As in Experiment 1, we also examined participants' own attitudes and the attitudes that they estimated for the average student. These measures did not qualify the main findings, however, so they will not be discussed further. The same videotape used in Experiment 1 was used again. Finally, the participants were debriefed and dismissed. They showed no suspicion about the procedures, nor could anyone guess our research hypotheses.

### *Results and discussion*

Estimates of the speaker's true attitude were analyzed in a 2 (Culture: Japanese vs. Americans) × 2 (Condition: free choice vs. no choice) × 2 (Essay Position: pro vs. anti) ANOVA. The pertinent means are shown in Table 3. The main effect of essay position and its interaction with experimental condition were significant, $F(1, 144) = 167.45$, $p < .001$ and $F(1, 144) = 8.53$, $p < .005$, respectively. No other effects were significant. In the free-choice condition, both Japanese and Americans showed strong correspondent inferences, attributing an essay-consistent attitude to the target person, $t(144)$s = 5.87 and 4.10, $p$s $< .001$, respectively. The magnitude of correspondent inference was no different between the two cultures, $t < 1$. This demonstrates that the essays used in the two cultures were comparable, so that factor cannot account for the weaker correspondence bias observed among Japanese in Experiment 1.

Correspondent inference was significantly weaker in the standard no-choice condition than in the free-choice condition, indicating that both Americans and Japanese discounted essay content while making attitude attributions if there was a social constraint. However, the discounting of essay content was far from complete. There was a significant correspondence bias even among

Table 3
Attitude attribution in the free-choice and no-choice conditions for American and Japanese participants

| Culture | American participants | | | | Japanese participants | | | |
|---|---|---|---|---|---|---|---|---|
| Condition | No choice | | Free choice | | No choice | | Free choice | |
| Essay | *M*(*SD*) | *N* | *M*(*SD*) | *N* | *M*(*SD*) | *N* | *M*(*SD*) | *N* |
| Pro-essay Attribution | 9.66(3.40) | 15 | 11.07(3.97) | 15 | 6.83(3.53) | 24 | 10.31(3.25) | 22 |
| Anti-essay Attribution | 3.33(2.58) | 15 | 3.00(2.70) | 15 | 3.33(2.26) | 24 | 2.81(1.89) | 22 |
| Difference *t* | 5.85* | | 7.47* | | 4.12* | | 8.45* | |

All $p$ values are based on two-tailed tests.
* $p < .001$.

Japanese participants, $t(144) = 4.12$, $p < .001$. This finding contrasts with the earlier finding, from the perceiver-induced constraint paradigm used in Experiment 1, where Japanese participants showed virtually no correspondence bias.[4]

Curiously, the correspondence bias was significantly weaker for Japanese than for Americans, $t(144) = 2.91$, $p < .005$. This finding differs from the findings of cross-cultural research using the standard no-choice condition (Choi & Nisbett, 1998; Krull et al., 1999; Miyamoto & Kitayama, 2002). In that research, the correspondence bias was no weaker for Asians than for North Americans in comparable conditions. Evidently, the Japanese in our research were more willing than the Americans to discount essay content. It is not entirely clear why this happened.[5] However, it does not compromise our main conclusion, because even the Japanese participants showed a strong correspondence bias in the standard no-choice condition.

## General discussion

### *Correspondence bias in the perceiver-induced constraint paradigm*

The perceiver-induced constraint paradigm allows researchers to determine "whether perceivers tend to infer correspondent attitudes when an actor expresses opinions that the perceivers know to have been completely controlled by the perceivers themselves (Gilbert & Jones, 1986, p. 269)." The available evidence clearly shows that they do. The correspondence bias, and all the other effects it entails, such as behavioral confirmation and self-fulfilling prophecies (e.g., Snyder, Tanke, & Berscheid, 1977), is apparently quite powerful. Hence, Gilbert and Jones (1986) warned that these social psychological phenomena might "persist despite inducers' explicit knowledge of their role in creating them (p. 278)." Although it is alarming, this warning may not apply to Japan, or (in all likelihood) to other Asian cultures.

In particular, we found that when participants were tested in the perceiver-induced constraint paradigm, Americans showed a correspondence bias, but Japanese did not. This was the case for both inducers and observers. Both Americans and the Japanese made correspondent inferences in a free-choice condition. Hence, the absence of any correspondence bias for the Japanese in the perceiver-induced constraint paradigm cannot be attributed to problems with the stimulus essays used for Japanese participants. Moreover, strong correspondent inferences were also observed in the standard no-choice condition. In this condition, the person in the videotape might have willingly endorsed the position that was assigned to her. Both Japanese and Americans may have been hesitant to entirely discount essay content as a result.

The psychological bias toward dispositional attributions among Americans seemed quite robust—in fact, robust enough to overcome explicit knowledge about the causal role that participants played in producing the target person's behavior. But among the Japanese, the bias seemed weak at best. Cross-cultural research (see, for example, Choi & Nisbett, 1998; Miller, 1984; Miyamoto & Kitayama, 2002; Morris & Peng, 1994) indicates that the extraordinary weight given to person over context—a staple in social psychology that can be traced back to Heider (1958)—may vary across cultures. Indeed, a very different bias, one that emphasizes context,

[4] We combined the inducer and observer conditions in Experiment 1 and compared the results from the perceiver-induced condition with those from the standard no-choice condition in a single ANOVA. The analysis revealed a significant essay position main effect, demonstrating a general trend toward correspondence bias, $F(1, 229) = 64.78$, $p < .0001$. This main effect was qualified by a significant interaction with culture, showing that the correspondence bias was weaker for Japanese than for Americans, $F(1, 229) = 10.17$, $p < .0001$. Another significant interaction, between essay position and experimental condition, showed that the correspondence bias was weaker in the perceiver-induced constraint condition than in the standard no-choice condition, $F(1, 229) = 21.14$, $p < .0001$.

[5] One conjecture is that the essays used in our research are less persuasive than the ones used in the other research (Miyamoto & Kitayama, 2002). Or the social constraint may have been more salient in our research (Choi & Nisbett, 1998).

may operate in some cultures outside of North America. We suspect that biases in social judgment are related to more general cognitive competencies, which have also been shown to vary across cultures (Kitayama & Duffy, in press).

*Culture and cognition*

Evidence is mounting that whereas Americans typically focus their attention on an object (e.g., essay content) in lieu of its context (social constraint), Asians typically attend to the gestalt of both the object and its context. For example, when observing another person make a statement, North Americans automatically focus on the content of that statement. In contrast, Asians focus more on contextual factors, such as the tone of voice in which the statement was made. In a series of experiments, Kitayama and his colleagues (Ishii, Reyes, & Kitayama, 2003; Kitayama & Ishii, 2002) have presented emotionally spoken emotional words to participants and asked them to make judgments about the pleasantness of either the meaning of these words or the tone in which they were spoken, focusing on one factor and ignoring the other. Response latency data revealed that North Americans found it harder to ignore word meaning than vocal tone, but Asians (such as Japanese and Filipinos) found it harder to ignore vocal tone than word content. These results suggest that North Americans automatically paid more attention to verbal content than to context (vocal tone), but Asians did the opposite.

Analogous cross-cultural differences in attention have been shown with nonverbal materials, such as fish and animals (Masuda & Nisbett, 2001), and even highly abstract geometric stimuli (Ji, Peng, & Nisbett, 2000; Kitayama, Duffy, Kawamura, & Larsen, 2003). For example, Kitayama et al. (2003) showed that whereas Americans are more capable than Japanese of ignoring contextual information (when a task requires them to do so), Japanese are more capable than Americans of incorporating contextual information (when that is required). These cross-culturally divergent cognitive competencies may be responsible, at least in part, for the cross-cultural difference in correspondence bias.

*Limitations and future directions*

One important limitation of our research is that it fell short of specifying the mechanisms underlying the cross-cultural difference in correspondence bias. Future work should examine such mechanisms. An influential model of correspondence bias proposed by Gilbert (e.g., Gilbert & Malone, 1995) may be helpful in this regard. Gilbert has argued that attitude attribution occurs in two stages. After observing another person's socially constrained behavior, people automatically draw inferences about the actor's dispositions. This first stage is followed by a slower, more deliberate (perhaps optional) second stage, where participants adjust their initial dispositional judgments by taking social constraints into account (see Miyamoto & Kitayama, 2002, for a mediation analysis that provide first cross-cultural evidence on this point).

Two possibilities for expanding Gilbert's model suggest themselves. First, people may sometimes simply suspend dispositional inferences (Winter & Uleman, 1984). On the basis of our research, we expect this to be more likely for Asians than for Americans. Second, people may sometimes automatically incorporate contextual information (e.g., social constraint) into their judgments. Again, this tendency may be more common for Asians than for Americans (Knowles, Morris, Chiu, & Hong, 2001). These hypotheses, suggested by cross-cultural considerations, will surely enrich contemporary theories of social cognition. Indeed, one of the most radical implications of research such as ours is that basic cognitive processes may be variable and malleable, depending on the cultural contexts in which they operate.

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