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When Does Culture Matter?: Effects of Personal Knowledge on the Correction of Culture-based Judgments

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DONNEL A. BRILEY and JENNIFER L. AAKER*

Four experiments demonstrate that culture-based differences in persuasion arise when a person processes information in a cursory, spontaneous manner, but these differences dissipate when a person's intuitions are supplemented by more deliberative processing. North Americans are persuaded more by promotion-focused information, and Chinese people are persuaded more by prevention-focused information, but only when initial, automatic reactions to messages are given. Corrections to these default judgments occur when processing is thoughtful. These results underscore the idea that culture does not exert a constant, unwavering effect on consumer judgments. A key factor in determining whether culture-based effects loom large or fade is the extent to which a person draws on cultural versus more personal knowledge when he or she is forming judgments.

When Does Culture Matter? Effects of Personal Knowledge on the Correction of Culture-Based Judgments

Consumers sometimes face situations in which they form judgments about persuasive messages based on their initial impressions; other times, consumers face situations in which they consider the messages more thoughtfully. For example, a person might see an advertisement on a roadside billboard and immediately form a judgment so that attention can be focused again on driving. Alternatively, this person might have some free time, decide to comb the Web, and come upon the same advertisement. In this Web-based context, the person might engage in more thoughtful deliberation to arrive at a judgment. We suggest that the persuasiveness of the appeal can be substantially different in these two contexts because the knowledge base that informs the judgment is likely to differ. In particular, we expect that the influence of sociocultural norms on consumers' evaluations of persuasion appeals diminishes as consumers move away from their automatic, reflexive reactions and deliberate on messages.

It is important to understand the conditions under which consumers are likely to align their thinking with sociocultural norms because cultural ideals often form the basis for the appeals in international market communications and, more generally, entire global brand management strategies. Indeed, the relevance and importance of these global issues have been increasing in both marketing thought and practice, fueled by the advent of new technologies that enable marketers to reach consumers more effectively across country boundaries. Consequently, global marketers have spent considerable effort to understand subtle differences across markets in product-relevant values to determine the degree to which communications should be locally tailored (Raman 2003). If such value-based communications are viewed by a consumer in a context in which the targeted norms are unlikely to be drawn on, the persuasiveness of the message could be weakened substantially.

Therefore, for a message to be effective, the marketer must know not only which messages align with a particular target group's values but also *when* such value-based messages are most effective. The current research reports four experiments that address this issue and shed light on the types of knowledge—either culturally shared or more personal—that underlie evaluations in different situations. Thus, we explore the link between tendencies instilled by culture and unmonitored, automatic cognitions.

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CULTURAL INFLUENCE DURING REFLEXIVE VERSUS DELIBERATIVE PROCESSES

In general, persuasive messages are more compelling to a person if they are compatible with particular values deemed to be important within his or her culture (e.g., the value of harmony; Han and Shavitt 1994). The influence of people's sociocultural backgrounds on their judgments can be traced to particularities of the knowledge they have gained through social experience (Kitayama 2002). Because of variation in life experiences, people differ as to which social constructs are frequently activated in daily life (Higgins, King, and Mavin 1982), become chronically accessible, and, in turn, are more likely to be used than others (Wyer and Srull 1986). Not surprisingly, a person's cultural background influences whether constructs that indicate certain values or ideals become highly accessible (Hong et al. 2000).

These chronically accessible constructs can be activated by rather general stimuli, such as the need to make a judgment to which the construct is relevant, and without conscious intention or awareness (Higgins and King 1981). Importantly, the automatic activation of these constructs affect evaluative judgments (Bargh et al. 1996). For example, among people who are reminded repeatedly of the importance of patriotism, knowledge constructs associated with nationalistic values often become more accessible. As this knowledge gains prominence over time, it becomes more likely to inform judgments, and evaluations that are consistent with these nationalistic values tend to become the default. Thus, in a persuasion context, an appeal is often assessed on the basis of whether the concepts presented fit with a person's highly accessible, culture-based knowledge.

Important in this research, however, is the premise that the influence of cultural knowledge on judgments varies, exerting its strongest effects when people give their immediate reactions to advertisements and its weakest effect when people deliberate when forming opinions. That is, we argue that judgments that arise through the former, "reflexive" mode reflect preferences that come to mind with minimal effort or introspection. Those that arise through the latter, "deliberative" mode take more time and resources and are reflective and consciously monitored.[1] These two modes describe a continuum. At the reflexive end, evaluations are fueled by automatic processes: They are based on initial impressions and formed on the basis of chronically accessible, commonly used constructs (e.g., cultural knowledge). On the other end of the continuum are more deliberated evaluations, which result from increasingly self-monitored processes. These evaluations involve thoughtful reasoning and more individuated personal knowledge, ultimately leading to an adjustment away from initial impressions. Next, we discuss the content of cultural and personal knowledge and suggest that elaborating on one versus the other can result in substantially different evaluations.

[1]Characteristics of the reflexive mode have been explored by researchers under the "automaticity" rubric (Hassin, Uleman, and Bargh 2005), a stream of literature that suggests that automatic, preconscious responses to aspects of the environment are learned from repeated exposure to events. More broadly, the two response types also align with those described by bimodal models of cognitive function (e.g., Kahneman's [2003] intuition versus reasoning framework) and motivation (Strack and Deutsch's [2004] impulsive versus reflective framework).

CULTURAL AND PERSONAL KNOWLEDGE

Cultural knowledge comprises implicit theories about the world that are largely shared by the members of a society (Hong et al. 2000). This set of shared knowledge includes beliefs, values, attitudes, and other constructs that are needed to interpret and navigate various environments. In this light, cultural knowledge forms the basis for a person's social reality (Lau, Chiu, and Lee 2001). The rules and guidelines that define this reality are passed on during child rearing and are reinforced by interactions with others.

In addition to this shared set of ideas to which a society generally subscribes, people have access to personal or more individual knowledge that need not always align with their culturally derived implicit theories. Learned through day-to-day, idiosyncratic experiences, personal knowledge often suggests caveats or warnings about a person's culturally prescribed, highly accessible knowledge. For example, a boy growing up in China may generally accept that his identity is defined by important relationships with others. Therefore, he should work to maintain harmony with family members (Markus and Kitayama 1991), a perspective that may be evoked in many situations. However, less-used, more personal knowledge in the mind of this Chinese boy may suggest that he should not always adhere concretely to this relationship-oriented perspective. For example, sometimes he might opt to wear clothes he loves but that his parents do not like. In support of this notion, when the accessibility of this less-used knowledge is increased by exposing Chinese people to pictures of American cultural icons—a contextual prime that prompts them to challenge the guidance of their cultural training—Chinese people are no more likely than American people to feel an emotional connection to important others (Briley and Wyer 2001).

Models of memory that suggest two systems, which are grounded in cognitive (e.g., McClelland, McNaughton, and O'Reilly 1995) and neuropsychological (e.g., Alvarez and Squire 1994; Milner 1989) principles, describe a similar division to that offered here. For example, the slow-learning memory system is responsible for forming stable, general representations of typical properties of the environment over many trials (Smith and DeCoster 2000). Representations in this system are often used without conscious awareness or attention and are tapped for processing of a repetitive nature (McClelland, McNaughton, and O'Reilly 1995). As such, this system governs the various associative, automatic processes that are available to people and holds the cultural knowledge that often feeds such processes. Because the slow-learning system focuses on useful generalizations learned over time, it is not designed for detailed recording of a single experience. Therefore, a fast-learning memory system is necessary for recording such experiences (Smith and DeCoster 2000). This system, which is used to construct new representations (i.e., episodic memory; Wiles and Humphreys 1993), mediates conscious, explicit recollection. Personal knowledge resides primarily in this system.

Importantly, the distinction between cultural and personal knowledge is not precise and can be subtle, hinging on both the accessibility and the content of the particular construct. Cultural knowledge tends to be highly accessible, and personal knowledge tends to be less so. Regarding content, cultural knowledge is more oriented around regularities and

norms, reflecting a large sample of life's events (e.g., the belief that a person should be open to new experiences and therefore should try new dishes when dining out). Personal knowledge focuses more on individual or atypical experiences (e.g., the recollection that trying a novel Bulgarian dish caused diarrhea; Smith and DeCoster 2000). Note that individual, personal experiences often provide lessons that align with cultural beliefs. However, such memories tend to be absorbed into the fast-learning system through consolidation, whereas more typical memories, which conflict with preexisting schemas, cannot be readily consolidated and thus tend to remain active in the slow-learning system (Smith and DeCoster 2000).

To illustrate, suppose that a consumer sees a persuasion message that resonates with some aspect of his or her cultural values, because it either aligns with or rubs against normative expectations. When the consumer views the advertisement with the intention of evaluating it, relevant knowledge in memory will be activated automatically as concepts from the advertisement (e.g., message advocating caution) align with constructs in memory (e.g., beliefs about the importance of cautious behavior; Higgins and King 1981). Knowledge that is highly accessible comes to the fore of the consumer's mind and is then used to construct an attitude (McClelland and Rumelhart 1998).

Now consider the situation in which the consumer feels pressure to form a quick judgment. This condition tends to increase the person's need for closure and thus enhances the tendency to "seize" on an initial, culture-consistent judgment and to "freeze" on this solution (Kruglanski and Webster 1996). In support of this notion, people who feel that they must make quick judgments typically rely on cultural norms as their default. For example, in high-time-pressure conditions, Chinese people lean toward situational attributions and North Americans lean toward dispositional attributions (Chiu et al. 2000; Knowles et al. 2001). Thus, we hypothesize that culturally influenced patterns in message evaluations will be obtained when people's evaluations of advertisement messages reflect their initial, immediate reactions. Evaluations formed under these conditions are akin to implicit attitudes, which reflect a person's uncontrolled, reflexive reactions to a stimulus (Greenwald, McGhee, and Schwartz 1998).[2]

Correction from these default reactions (Wegener and Petty 1997) can occur through controlled processes that require attentional resources (Norman and Shallice 1986; Wegner and Bargh 1998). We suggest that an important aspect of this correction process involves the type of knowledge that is brought to bear on the decision. As thoughtful deliberation occurs, the need to seize and freeze declines. Consequently, people's message-related thinking broadens to include personal, experiential reflections in addition to readily accessible, culturally shared ideas (McClelland, McNaughton, and O'Reilly 1995). This personal knowledge is likely to prompt questioning, critical assessment, and ensuing "internal debate" (e.g., what a person wants to do versus what a person should do; Tappan 1997). Fueled by attentional resources, such internal debate should lead to a movement away from initial, default impressions. Indeed, culturally dominant patterns of attributions are mitigated in low-time-pressure conditions (Chiu et al. 2000; Knowles et al. 2001). Thus, we hypothesize that cultural patterns of evaluations arise when people react reflexively and that these patterns are attenuated when people respond deliberatively. To test these hypotheses, we examine distinct antecedents that should give rise to these processing tendencies, including primes and situational variables that modulate the propensity to engage in deliberative processing.

SUMMARY OF STUDIES

To test our propositions, we rely mostly on participants from Hong Kong and the United States, examining their attitudes toward advertising messages that focus on either benefits that can be gained (promotion focused) or problems that can be avoided (prevention focused; Higgins 1997) by using the brand. North Americans, who place importance on achievement and accomplishment and tend to have highly accessible independent selves, often focus on the positive consequences of their decisions. Chinese people, who place importance on protection and security and tend to have highly accessible interdependent selves, often focus on the negative consequences (Lee, Aaker, and Gardner 2000). Furthermore, these cultural tendencies help explain preference tendencies for advertisements. For example, people with accessible independent selves tend to find promotion-focused appeals (touting the extra energy that can be gained by drinking Welch's grape juice) more persuasive than prevention-focused appeals (emphasizing the health problems that can be avoided by drinking Welch's). The opposite pattern occurs for people whose interdependent selves are activated (Aaker and Lee 2001). Across our studies, we use this persuasive context to demonstrate when cultural forces influence attitudes (replicating these effects) and when personal knowledge comes to the fore (and thus eliminates these effects). For replication, in Study 3, we also test our propositions in the context of culture-based attribution patterns (Morris and Peng 1994).

We present four studies that showed evidence that people who deliberate thoughtfully when evaluating persuasive messages (relative to those who rely on their more immediate reactions) are less likely to draw on culturally prescribed norms to form evaluations. Furthermore, our data suggest that deliberation leads to a correction in thought processes by triggering personal reflection and internal debate. In a pilot study, Asian American and Anglo-American participants gave their initial reactions to either a promotion- or a prevention-focused advertisement, and other participants gave deliberated, thoughtful assessments of one of these advertisements. Cultural influence on evaluations was apparent in initial reaction conditions but not in deliberated reaction conditions, a pattern we replicated in Study 1 using participants in the United States and Hong Kong and

[2]Our conceptualization suggests that the activation of cultural knowledge proceeds outside of conscious awareness. However, this limitation does not apply to the attitude construction process that follows, which can be more controlled (e.g., Wegner and Bargh 1998). Thus, the distinction between reflexive and deliberative attitudes presented in our conceptualization shares commonalities with frameworks that classify certain attitudes as implicit (Greenwald, McGhee, and Schwartz 1998) or automatic (Bargh et al. 1996).

manipulating reaction modes outside of conscious awareness using primes.

If attentional resources are important to the correction process, we might be able to suppress such correction tendencies by limiting the cognitive resources available to participants. We tested this idea in Study 2 by having some participants complete evaluations while they were cognitively busy with a memory task and by having others complete evaluations while they were not cognitively taxed. Indeed, cognitive load led to another conceptual replication. To eliminate a potential confound involving possible differences in processing time, in Study 3 we introduced a reaction mode manipulation that controlled the time over which people were exposed to the appeals. We observed cultural patterns when perceived time pressure was low but not when it was high. Notably, an examination of thoughts showed that in low-time-pressure conditions (but not in high-time-pressure conditions), participants focused on personal experiences and offered thoughtful, critical assessments that reflected an internal debate. This personal knowledge prompted correction away from the initial default impressions, eliminating the effects of sociocultural forces on judgments.

PILOT STUDY

The objective of the pilot study was to test the prediction that Anglo-Americans would report more favorable impressions of promotion than prevention messages when providing their initial reactions but would have similar impressions of the two appeals when giving thoughtful reactions. In contrast, Asian Americans should develop more favorable impressions of prevention than promotion messages when giving their initial reactions but should have similar impressions of the two appeals when giving thoughtful reactions. Thus, Asian American and Anglo-American respondents evaluated promotion- or prevention-related persuasive appeals. To manipulate mind-set, some participants were instructed to give immediate reactions to the advertisement, and others were instructed to think more carefully about the appeal before reporting their evaluation. Therefore, the experiment had a 2 (ethnicity: Asian American versus Anglo-American) × 2 (appeal focus: promotion versus prevention) × 2 (reaction type: immediate versus deliberated) between-subjects design.

Method

We paid 188 students at a California university with an ethnically diverse population $5 to take part in a study on advertising effectiveness. We included 119 participants in our analyses, 64 of whom were Anglo-Americans (mean age = 21 years, SD = .4; 58% were female) and 55 of whom were Asian Americans (mean age = 21 years, SD = .4; 61% were female). Before viewing the appeals, half of the participants read the deliberation instructions that told them to respond with their "mindful, elaborated reactions" and to draw on their "considered reflections" when answering questions about the appeal. The instructions for participants in the immediate reaction conditions told them to respond to subsequent advertisements with their "natural, automatic impulses" and to draw on their "initial reactions" when answering questions. Participants received these instructions before they read the advertisements and, again, before they reported their evaluations.

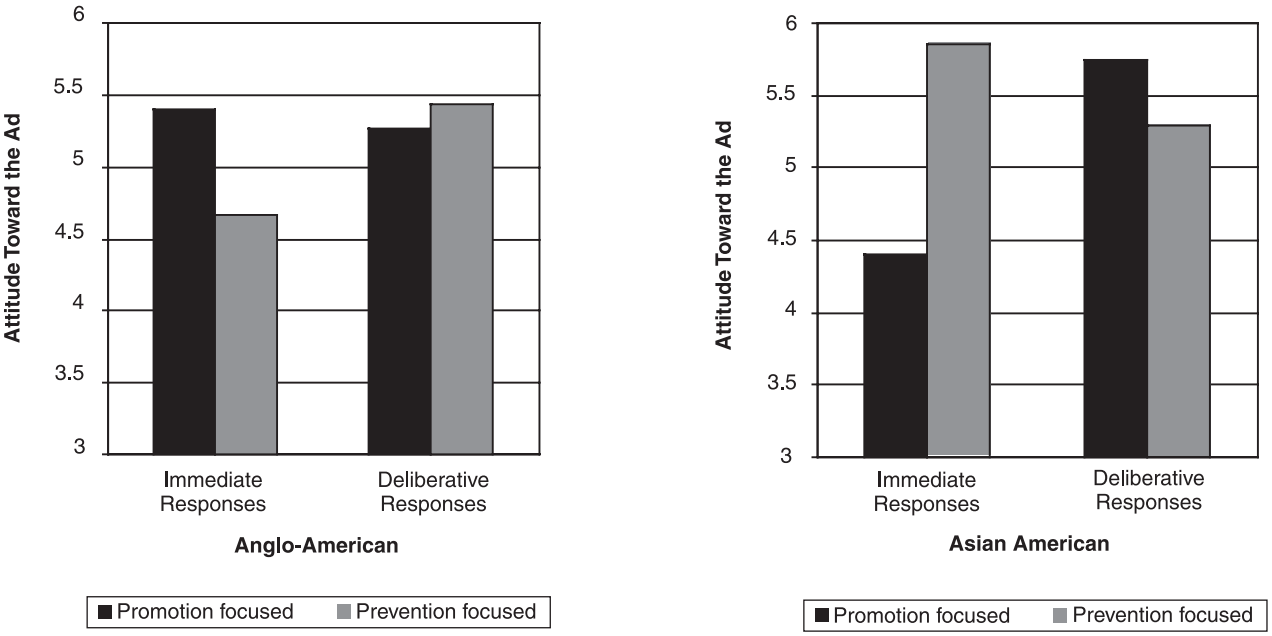
Participants viewed advertisements for Welch's grape juice (adapted from Aaker and Lee 2001), in which the promotion appeal focused on the benefits that could be gained by drinking the juice (e.g., the juice "can lead to higher energy levels," "is great tasting as well as energizing," "is fun to drink"). The prevention appeal emphasized problems that could be avoided by drinking the grape juice (the juice "can reduce the risk of some cancers and heart disease," "helps keep arteries clear so that blood can flow freely," "is healthy to drink"). Participants took as much time as they required to read the appeal and complete their evaluations. We asked them to rate the Welch's advertisement on three seven-point scales, anchored by "bad/good," "negative/positive," and "unfavorable/favorable." Finally, participants rated the degree to which they (1) had thought about, focused on, and felt that the juice contributed to energy or health and (2) had answered questions about the advertisement by using their initial impulse, responding quickly, reflecting thoroughly, and thinking carefully (1 = "not at all," and 7 = "a lot"). Finally, participants were debriefed and dismissed.

Results

Manipulation checks. The index of promotion appeal effectiveness comprises the three energy-related measures (α = .92), and the index of prevention appeal effectiveness comprises the three health-related measures (α = .91). We examined the effects of our manipulations on these two indexes using separate full-model (2 × 2 × 2) analyses of variance (ANOVAs). As hoped, we found higher scores on the energy index for the promotion than for the prevention version of the appeal (M = 4.4 versus 2.7; $F_{1, 111} = 31.6$, $p < .001$), and we found higher scores on the health index for the prevention than for the promotion version (M = 6.0 versus 4.8; $F_{1, 111} = 19.1$, $p < .001$). Only one other predictor was significant in the two ANOVAs: Asian American participants reported higher scores on the health index than their Anglo-American counterparts (M = 5.7 versus 5.0; $F_{1, 111} = 6.8$, $p < .01$), indicating greater health concerns. Similarly, we ran full-model ANOVAs on the two indexes that showed the effectiveness of the reaction-type manipulation (immediate reaction index, α = .83; deliberated reaction index, α = .85). Participants who were instructed to provide their immediate reactions indicated a greater tendency to react quickly (M = 6.3 versus 5.6; $F_{1, 111} = 10.5$, $p < .005$) and a weaker tendency to consider the advertisement thoughtfully (M = 4.5 versus 3.4; $F_{1, 111} = 14.0$, $p < .001$) than those in the deliberation conditions.

Test of predictions. We ran a full 2 × 2 × 2 ANOVA on the attitude index (α = .86), yielding only two effects, one of which was an ethnicity- and appeal-type interaction ($F_{1, 111} = 4.2$, $p < .05$). Participants' attitudes toward promotion versus prevention appeals were dependent on their ethnicities, consistent with Aaker and Lee's (2001) findings (see Figure 1). Importantly, however, this effect was qualified by the three-way interaction ($F_{1, 111} = 13.6$, $p < .001$). Planned contrasts showed that when participants gave their immediate reactions to the advertisements, Asian Americans had more favorable attitudes toward the prevention

Figure 1
PILOT STUDY: ATTITUDE TOWARD THE AD



Notes: n = 119, with approximately 15 participants per cell. Ratings were made on seven-point scales; higher numbers represent more favorable attitudes. Planned contrasts are significant in both immediate conditions at $p < .05$ (within-condition contrasts in deliberate conditions are not significant).

than the promotion appeal (M = 5.9 versus 4.4; $F_{1, 111}$ = 10.8, $p < .005$). Anglo-Americans who gave their immediate reactions demonstrated the opposite pattern, preferring the promotion to the prevention appeal (M = 5.4 versus 4.7; $F_{1, 111}$ = 4.9, $p < .05$). However, when participants were instructed to deliberate, cultural differences disappeared: Both Asian Americans (M_{promo} = 5.8, M_{prev} = 5.3; F < 1.2) and Anglo-Americans (M_{promo} = 5.3, M_{prev} = 5.4; F < 1) indicated similar liking for the promotion and prevention appeals, consistent with predictions.

Discussion

When participants gave their immediate reactions to advertisements, Asian American participants had more positive attitudes toward prevention than promotion messages, and Anglo-Americans displayed the opposite pattern. However, the influence of culture on evaluations disappeared when participants engaged in thoughtful deliberations. In Study 1, we attempt to replicate this finding in a two-country study and to address a potential alternative explanation. Specifically, the instructions to participants to deliberate may have inadvertently triggered demand-related effects. To reduce the chance of such effects, we instantiate our deliberation manipulation less obtrusively, using priming rather than explicit instructions.

STUDY 1

The main objective of Study 1 was to activate concepts associated with either immediate or thoughtful actions through a priming technique intended to shift a person's mind-set outside of conscious awareness. Again, we expected this shift to moderate the extent of cultural influence on attitudes. To generalize, we compared English-speaking participants in Hong Kong and the United States. Thus, the study used a 2 (culture: Hong Kong versus United States) × 2 (appeal focus: promotion versus prevention) × 2 (priming task: immediate versus deliberated) design, with all manipulations between subjects.

Method

We collected data from 80 Hong Kong (mean age = 21 years, SD = 1.1; 48% were female) and 85 U.S. (mean age = 21 years, SD = 4.9; 49% were female) undergraduate students. Participants in the Hong Kong sample received course credit for participation, and those in the U.S. sample were paid $4. Of the U.S. sample, we included only the 56 participants who were Americans and were not of Asian descent in our analyses. (When we included all participants, the results were statistically weaker, though the same pattern resulted.) All 80 participants in the Hong Kong sample were Chinese and therefore were included.

As a cover story, participants learned that we were interested in how people construct meaningful English sentences and which sentences they are likely to form when more than one is possible. On this pretense, participants completed a sentence construction task (adapted from the work of Srull and Wyer 1979), during which they were exposed to the primes.

Participants received 35 sets of four randomly arranged words and were told that the words in each set could be used to form two different three-word sentences. Their task was to underline the three words that composed the first

sentence that came to mind. The sentences formed from 22 of the sets were filler items. However, we constructed the remaining 13 items to include phrases that mentioned either immediate or deliberate action, depending on the condition. In the immediate-action condition, the sentences that could be constructed conveyed sudden, immediate, or spontaneous actions (e.g., an item included these four words in the following order: "decide immediately I they"). In the deliberate-action condition, the sentences constructed from the items conveyed careful, deliberate, or thoughtful actions (e.g., "conscientiously reacts he responds"). Participants were asked to complete the form as quickly as possible without making mistakes and then to turn to a ten-minute filler task. Then, they received a purportedly unrelated questionnaire in which they viewed and evaluated the same advertisement used in the pilot study and completed the same regulatory focus check.

Before the debriefing, participants completed some measures to determine whether they were aware of any effects of the prime. If participants were aware of our manipulation of deliberation, the manipulation should also affect their feelings about how deliberative and thoughtful they had been when answering questions (Winter, Uleman, and Cunniff 1985). Therefore, at the end of the questionnaire, participants rated (1) how much time they thought they had taken to answer the questions they had been asked, (2) whether they believed that they had reflected thoroughly on the advertisement (1 = "not at all," and 7 = "a lot"), and (3) whether they believed that they had thought carefully when answering the questions (1 = "not at all," and 7 = "a lot"). Participants also checked one of five boxes to indicate their perceptions of the time they had taken: less than 30 seconds, 30–60 seconds, 1–2 minutes, 3–4 minutes, and more than 4 minutes. Consistent with our expectations, participants showed no indication that they were aware of the influence of the prime. Separate full-model (2 × 2 × 2) ANOVAs of each of the three measures previously mentioned revealed no significant effects.

Results

Manipulation checks. We confirmed the validity of our regulatory focus manipulation using the same measures and resulting indexes that we used in the pilot study. Full 2 × 2 × 2 ANOVAs of the energy ($\alpha = .91$) and health ($\alpha = .90$) indicators showed that more energy-related (M = 4.0 versus 2.9; $F_{1, 128} = 23.3$, $p < .001$) and fewer health-related (M = 5.6 versus 5.0; $F_{1, 128} = 5.8$, $p < .05$) thoughts were generated by the promotion-focused than by the prevention-focused appeal. In addition, both ANOVAs indicated a main effect of culture: Chinese participants reported higher ratings than North American participants on both the energy (M = 3.73 versus 3.11; $F_{1, 128} = 6.81$, $p < .05$) and the health (M = 5.74 versus 4.83; $F_{1, 128} = 16.78$, $p < .001$) dimensions. No other effects reached significance in the two ANOVAs.

Test of predictions. The results of a 2 × 2 × 2 ANOVA yielded only a significant three-way interaction ($F_{1, 128} = 12.6$, $p < .001$). Planned contrasts showed that Chinese participants who were given the immediate reaction prime had more favorable attitudes toward the prevention than the promotion messages (M = 5.2 versus 4.6; $F_{1, 76} = 5.9$, $p < .05$). Participants in the United States displayed the opposite pattern (M = 4.8 versus 5.9; $F_{1, 52} = 5.8$, $p < .01$). Importantly, however, such attitudinal differences did not emerge for the appeal types under thoughtful reaction priming conditions, regardless of whether the participants were Chinese ($M_{prev} = 4.4$, $M_{promo} = 4.9$; $F_{1, 76} = 2.4$, $p > .15$) or North American ($M_{prev} = 5.6$, $M_{promo} = 5.2$; $F_{1, 52} < 1$; see Figure 2).

Discussion

Using a two-country sample and a less conspicuous manipulation of deliberation, Study 1 offers results that conceptually parallel those of the pilot study. Thus, both the pilot study and Study 1 find that participants are not influenced by cultural norms when they ruminate thoughtfully to reach assessments of persuasive messages. Although we suggest that the effects arise because people adjust their initial reactions away from cultural norms and attend to more personal knowledge when they deliberate, an alternative possibility is that exposure time is at least partly responsible for the effects. Given that participants were able to spend as much or as little time as they liked reading the advertisements, those in deliberation conditions could have spent more time with the advertisements than those in immediate reaction conditions, and this extra time may have contributed to the observed effects. We address this concern in Studies 2 and 3.

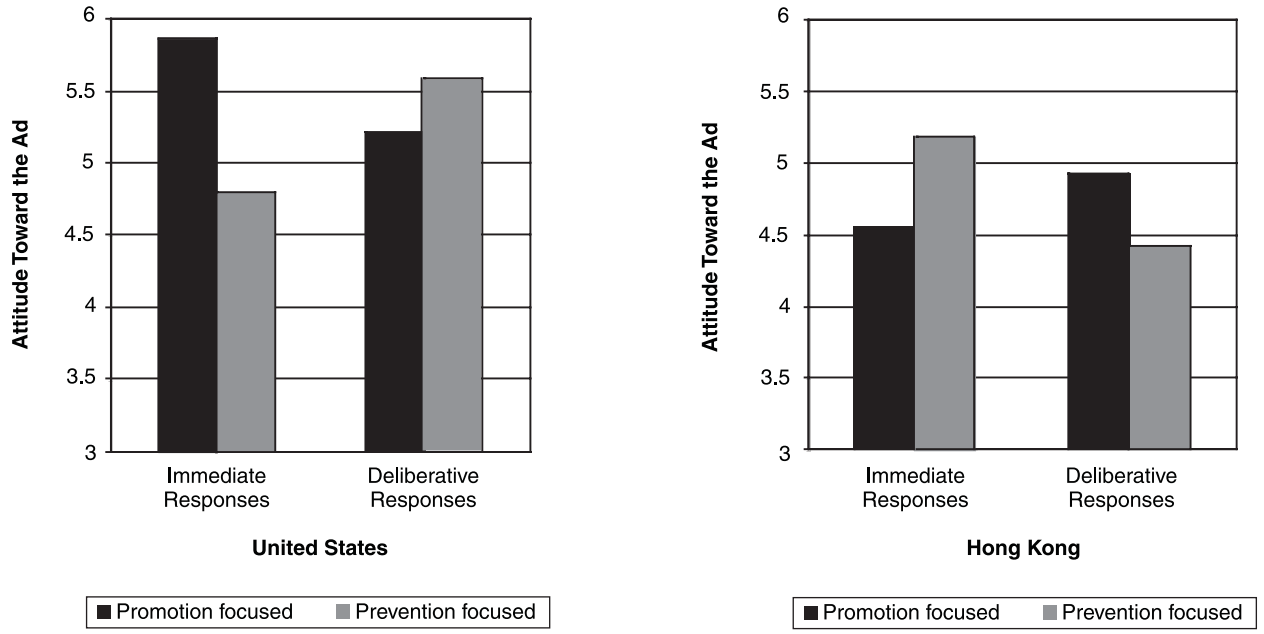
STUDY 2

The main objective of Study 2 was to (1) hold constant a potential confound in Study 1 (variability in time spent on information processing) and (2) examine whether culture-consistent effects persist when participants are distracted and therefore are less able to make use of resource-intensive processes. We posit that cultural patterns should be obtained when immediate reactions are offered because unmonitored, associative functions are at work and that such patterns do not arise under deliberative conditions because other resource-demanding processes that are necessary for correction take control (Norman and Shallice 1986). If these assertions are true, increases in the cognitive resources available to people for the judgment task should decrease the extent to which cultural inclinations are followed. We test this proposition in Study 2. Drawing on the work of Gilbert and Osborne (1989), we manipulate the cognitive load under which participants completed judgments to test this idea. Thus, we used a 2 (culture: Hong Kong versus United States) × 2 (appeal focus: promotion versus prevention) × 2 (cognitive load: high versus low) between-subjects design, and we introduced a new category for generalizability.

Method

Eighty-five U.S. (mean age = 21 years, SD = 5.1; 58% were female) and 66 Hong Kong (mean age = 21 years, SD = 1.2; 63% were female) students participated in the study in exchange for $4 (U.S. sample) and course credit (Hong Kong sample). As a cover story, participants were told that the questionnaire set was composed of unrelated studies. The instructions indicated, "please answer all questions as honestly as possible. There are no correct answers, and your responses will remain anonymous." Half of the participants were randomly assigned to a cognitive load condition in which they first participated in a "memory study" that, according to the instructions, would help

Figure 2
STUDY 1: ATTITUDE TOWARD THE AD



Notes: n = 136, with approximately 17 participants per cell. Ratings were made on seven-point scales; higher numbers represent more favorable attitudes. Predicted planned contrasts are all significant at $p < .05$.

researchers understand the relationship between memory ability and judgments. The experimenter showed the participants an eight-digit number, told them to remember it without copying it down, and indicated that they would need to recall the number later. The other participants did not receive the memory study (no-load condition).

Next, all participants received an "advertising study" in which they evaluated an advertisement for a fictitious suntan lotion brand, SunSkin. As with previous studies, some participants evaluated a promotion message, and others evaluated a prevention message. All had one minute to view the advertisement. Both versions had a color picture of a Hawaiian beach and palm tree, and the message they conveyed was adapted from the work of Lee and Aaker (2004). The header of the promotion message read, "Enjoy life—bask in the warm rays of the sun, feeling completely happy," and the "Enjoy life" statement was repeated at the bottom of the advertisement. The header of the prevention message read, "Be safe—bask in the warm rays of the sun, feeling completely relaxed," and the "Be safe" statement was repeated at the bottom of the advertisement. Both versions also had a paragraph that discussed several benefits of the product (e.g., the formula is all-natural; includes PABA [para-aminobenzoic acid]; and does not irritate skin, stain clothing, or need to be reapplied after getting wet). We used the same measures (seven-point scales, anchored by "bad/good," "negative/positive," and "unfavorable/favorable") as in the prior studies. Participants then indicated whether they thought about (1) enjoying life and (2) enjoying the sun (promotion checks) and whether they thought about (3) feeling safe from the sun and (4) being protected from the sun (prevention checks), all anchored by "not at all" (1) and "a lot" (7).

Finally, participants completed the last "study," titled "Buying Scenarios." We instructed participants to "Imagine you call to order a delivery from a pizza restaurant and are informed that the pizza will arrive in 45 minutes. Thirty minutes later, someone from the restaurant calls. You are told that in an effort to offer better service to customers, they are calling to apologize for any inconvenience since your pizza may be delivered later than expected. The driver is having trouble keeping up with the delivery load tonight, and the kitchen has been flooded with many orders that came in at the same time as yours. Your pizza arrives 1 hour and 15 minutes after you placed the order." Participants indicated whether the late delivery was caused by the delivery person or was due to situational factors outside of his or her control (1 = "due to the deliveryman," and 7 = "due to situational factors"; see Seligman et al. 1985). Before participants were dismissed, those in the load condition wrote the eight-digit number they saw previously and indicated, "To what extent did you think about this number since it was given to you?" (1 = "very little," and 7 = "a lot").

Results

Manipulation checks. We formed an index of available attention resources using reports about how much participants (1) were able to focus on the advertisement, (2) could clearly think about its message, (3) felt distracted, and (4) were preoccupied (the last two items were reverse scored; $\alpha = .84$). Using a full-model ($2 \times 2 \times 2$) ANOVA, we found that participants in the no-load conditions (M = 1.9) had more attentional resources than those who were distracted (M = 1.2, $F_{1, 149} = 3.9$, $p < .05$); no other predictors were significant. In addition, we ran full-model ANOVAs for the promotion ($\alpha = .86$) and prevention ($\alpha = .87$) checks. Par-

ticipants who saw the promotion rather than the prevention version of the advertisement reported more enjoyment-related thoughts (M_{promo} = 4.6, M_{prev} = 4.2; $F_{1, 149}$ = 3.3, $p < .05$) and fewer safety-related thoughts (M_{promo} = 4.1, M_{prev} = 4.4; $F_{1, 149}$ = 5.0, $p < .05$). Neither ANOVA yielded any other significant effects.

Test of predictions. We examined attitudes (α = .88) in a full-model ANOVA, which yielded the predicted three-way interaction ($F_{1, 143}$ = 3.8, $p < .05$). North Americans who were distracted while evaluating the advertisements found enjoyment-oriented advertisements (M = 5.7) more appealing than safety-oriented advertisements (M = 5.0; $F_{1, 143}$ = 3.2, $p < .05$). The opposite pattern was displayed by distracted Chinese participants, who preferred advertisements touting safety (M = 5.3) rather than enjoyment (M = 4.6; $F_{1, 143}$ = 3.7, $p < .05$). In the no-load conditions, in which participants were not burdened by the distraction task and could devote more attention to the stimuli, there was no evidence of cultural patterns. These participants had similar attitudes toward enjoyment and safety messages, whether they were from the United States (M_{enjoy} = 4.8, M_{safety} = 5.0; F < 1) or Hong Kong (M_{enjoy} = 4.7, M_{safety} = 4.6; F < 1). Only one other predictor in the model was (marginally) significant: Participants in the distraction condition (M = 5.2) gave higher evaluations than participants in the no-load condition (M = 4.8; $F_{1, 143}$ = 3.7, $p < .06$).

To establish generalizability of these culture-based effects, we examined participants' attributions regarding the pizza debacle. We analyzed attributions as a function of cultural sample and load condition. Hong Kong participants attributed the late delivery to situational factors more so than did their U.S. counterparts ($F_{1, 146}$ = 3.0, $p < .05$; consistent with Morris and Peng's [1994] findings). However, this main effect was qualified by the interaction of sample with load ($F_{1, 146}$ = 12.8, $p < .001$). Among participants who were preoccupied by the memory task, those from Hong Kong gave greater weight to situational factors than those from the United States (M_{HK} = 6.0, M_{US} = 5.1; $F_{1, 146}$ = 9.4, $p < .005$). However, in the no-load conditions, both cultural samples were equally likely to make situational attributions (M_{HK} = 5.1, M_{US} = 5.4; F < 1). This pattern suggests that the automaticity effects underlying the influence of culture on perceptions or preferences not only are related to paradigms involving regulatory focus but also appear to generalize to other culture-based phenomena (Chiu et al. 2000).

The pilot study and Studies 1 and 2 are fairly robust in their effects, shedding light on when culture-based effects loom large and disappear. In Study 3, we attempt to understand the mechanism driving these effects by examining the specific content of knowledge accessed when people form evaluations using their initial reactions rather than engage in more deliberate processing. A secondary goal was to examine the effects of a deliberation manipulation that holds exposure time constant: We manipulated participants' desire to resolve their feelings toward the advertisement quickly and decisively.

STUDY 3

Again, Chinese and North American participants evaluated either a promotion or a prevention SunSkin advertisement, but in this case, tendencies to deliberate were increased by manipulating the extent to which participants believed that they had little (or plenty of) time to complete their evaluations. Thus, Study 3 relies on a 2 (culture: Hong Kong versus United States) × 2 (appeal focus: promotion versus prevention) × 3 (perceived time pressure: high, moderate, or low) between-subjects design.

Method

One hundred seventeen U.S. (mean age = 21 years, SD = 2.0; 48% were female) and 120 Hong Kong (mean age = 20 years, SD = .7; 45% were female) students took part in the study for $4 and course credit, respectively. We included in our analysis only the responses of the 116 Chinese participants from the Hong Kong sample and of the 75 Anglo-American participants from the U.S. sample. As a cover story, participants learned that researchers were interested in "how consumers respond to ads in a real life situation. Based on pretests, we have found that most people take about 1 minute to thoroughly process this information and come to a clear evaluation. Therefore, we would like you to take 1 minute to process the information and come to a clear evaluation" (moderate-time-pressure condition). In the low-time-pressure condition, participants were told that most people need 1½ minutes to process the information in an advertisement thoroughly; in the high-time-pressure condition, they were told that only 30 seconds was needed. Because all participants had 1 minute to read the advertisement, we held time to process the advertisement constant. That is, unique to this study, the only construct that varied was the amount of time pressure the participants felt.

After reading the cover story, each participant evaluated either an enjoyment-oriented or a safety-oriented SunSkin advertisement, as in Study 2. In addition, however, participants listed the reasons (i.e., thoughts and reactions to the advertisements) that led them to reach their assessment of the advertisement. Then, they completed manipulation checks and were dismissed.

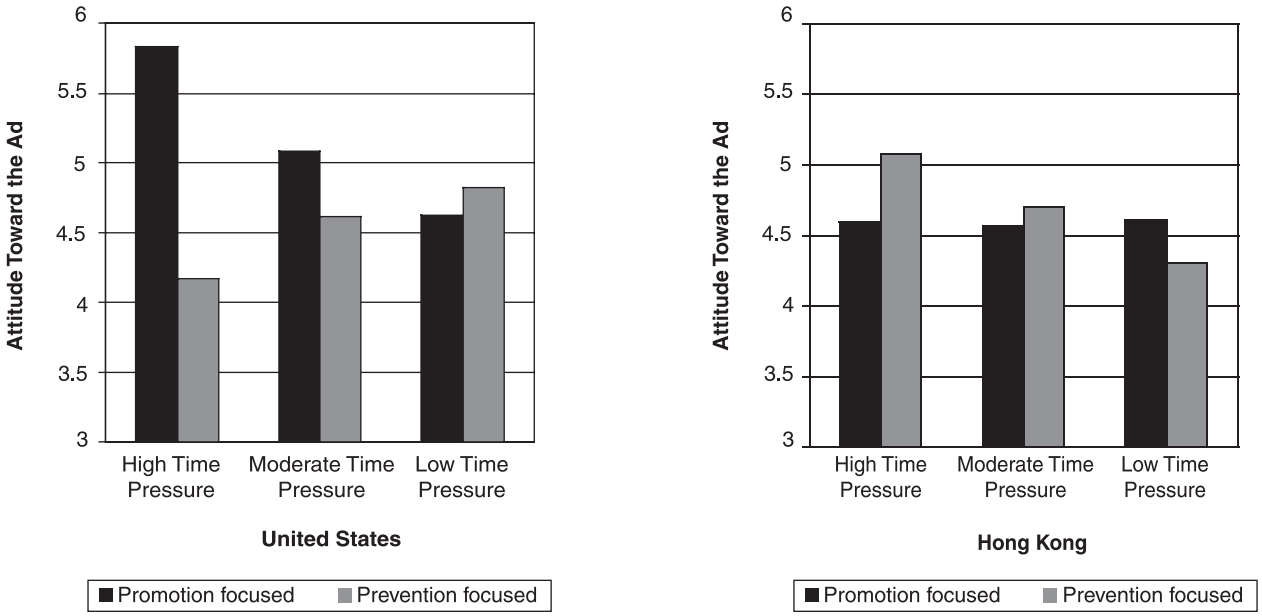
Results

Manipulation checks. We ran 2 × 2 × 3 ANOVAs on the promotion (α = .89) and prevention (α = .93) measures. Participants who saw the promotion advertisement reported more enjoyment-related thoughts (M_{promo} = 4.6, M_{prev} = 4.3; $F_{1, 178}$ = 3.2, $p < .05$) and fewer safety-related thoughts (M_{promo} = 4.1, M_{prev} = 4.7; $F_{1, 178}$ = 5.0, $p < .05$) than those who saw the prevention advertisement. There were no other significant effects.

Ad attitude. A 2 × 2 × 3 ANOVA on attitudes (α = .80) yielded a culture × benefit-type interaction ($F_{1, 178}$ = 6.6, p = .01), qualified by the three-way interaction ($F_{2, 178}$ = 7.3, p = .001). As we predicted, planned contrasts showed that U.S. participants in high-time-pressure conditions found the SunSkin advertisement touting enjoyment (M = 5.8) more appealing than the one touting safety (M = 4.2; $F_{1, 72}$ = 10.0, $p < .005$). Hong Kong participants who were in the high-time-pressure condition displayed the opposite pattern, rating the safety-oriented appeal (M = 5.1) more appealing than the enjoyment-oriented appeal (M = 4.6; $F_{1, 110}$ = 3.9, $p < .05$).

However, as the need to come to closure quickly was relaxed, all participants became increasingly less likely to follow their cultural inclinations (see Figure 3). Under moderate- and low-time-pressure conditions, participants in neither sample showed any indication that they were influ-

Figure 3
STUDY 3: ATTITUDE TOWARD THE AD



Notes: n = 191, with approximately 16 participants per cell. Ratings were made on seven-point scales; higher numbers represent more favorable attitudes. Planned contrasts are significant in both high-time-pressure conditions at $p < .05$ (within-condition contrasts in moderate- and low-time-pressure conditions are not significant).

enced by cultural norms. In low-time-pressure conditions, both the U.S. ($M_{promo} = 4.6$, $M_{prev} = 4.8$; $F < 1$) and the Hong Kong ($M_{promo} = 4.6$, $M_{prev} = 4.3$; $F_{1, 110} = 1.8$, $p > .18$) samples felt similarly about promotion and prevention advertisements, and the same was true under moderate-time-pressure conditions (U.S. sample: $M_{promo} = 5.1$, $M_{prev} = 4.6$; $F < 1$; Hong Kong sample: $M_{promo} = 4.6$, $M_{prev} = 4.7$; $F < 1$).

Knowledge content. We suggest that these effects arise because people ascribe to their culturally based default assessments when they feel pressured. However, when pressure is relaxed, caveats regarding these initial reactions come to mind, sparking internal debate and, thus, adjustment (Tappan 1997). Therefore, under high-time-pressure conditions, in which initial positions are not challenged, thinking not only should be largely constructive but also should be focused on the message, because the message provides the content that triggers automatic evaluations. Indeed, people reflect minimally on the culturally based rules and schemas underlying their automatic reactions and are aware only of outcomes of these processes (Bargh et al. 1996). However, as time pressure declines, thinking should become increasingly personal, leading to correction.

We examined the initial reasons that participants gave for their evaluations to determine whether these highly available thoughts showed any evidence of this adjustment mechanism. Two independent coders, blind to the conditions and hypotheses, indicated whether the first two reasons offered by each participant (1) established an initial, "default" judgment by taking a conventional perspective on the advertisement, focusing in a constructive, noncritical way on specific message phrases or concepts (54%; e.g., "I like the idea of enjoying life"; 1 = yes, –1 = no); (2) showed openness to "correction" by mentioning particular personal experience or events that raised caution or concern about the brand, suggesting a tendency to take on an atypical or unconventional view (27%; e.g., "I used to use waterproof sunscreen, but it is not good for my sensitive skin"; 1 = yes, –1 = no); or (3) did not fit these categories (25%). Six percent of the reasons mentioned both coding elements, and therefore we included them in both categories. Coders' responses were reliable ($\alpha = .87$); in cases of disagreement, we used the average score (0).

Our indexes of default and correction thinking comprised the frequency with which each thought type occurred (0–2; see Table 1). We expected default thoughts to predominate in high-time-pressure conditions and correction thoughts to predominate in low-time-pressure conditions. Full-model ANOVAs on these indexes show three-way interactions for both default ($F_{2, 178} = 12.2$, $p < .001$) and correction ($F_{2, 178} = 3.0$, $p < .05$) thoughts, consistent with the idea that each index has differential effectiveness across time-pressure conditions. We then completed separate mediation analyses of the high- and low-time-pressure conditions for both indexes.

An analysis of default thoughts for participants in high-time-pressure conditions showed that the culture × appeal focus interaction was predictive ($F_{1, 54} = 14.7$, $p < .001$), though the same analysis using default thoughts in low-time-pressure conditions showed no significant result ($F_{1, 62} = 1.9$, $p > .15$). Next, we focused on high-time-pressure conditions. As we predicted, default reasons indeed were predictive of evaluations when used as the sole predictor ($F_{1, 54} = 15.6$, $p < .001$) and when included in a

Table 1

STUDY 3: INITIAL REASONS FOR JUDGMENTS: DEFAULT AND CORRECTION INDEXES

	United States			*Hong Kong*		
	High Time Pressure	*Moderate Time Pressure*	*Low Time Pressure*	*High Time Pressure*	*Moderate Time Pressure*	*Low Time Pressure*
Frequency of Default Thoughts						
Culture-consistent appeal	1.56[a]	.76[b]	.50[b, c]	.78[b]	.60[b, c]	.46[c]
Culture-inconsistent appeal	.46[b, c]	.66[b, c]	.80[b]	.40[c]	.58[b]	.68[b, c]
Frequency of Correction Thoughts						
Culture-consistent appeal	.01	.25	1.46[a]	.36	.54	1.04[a]
Culture-inconsistent appeal	.40	.32	.45	.20	.10	.18

Notes: n = 191, with approximately 16 participants per cell. The default index indicates frequency (0–2) of constructive, message-focused thoughts, and the correction index indicates frequency (0–2) of personal experiences reflecting caution. Means with different superscripts in the same row and column are significantly different at $p < .05$.

model with appeal focus, culture, and the interaction of these two ($F_{1, 51} = 5.7$, $p < .05$). In the latter model, the culture × appeal focus interaction did not reach significance ($F_{1, 51} = 2.1$, $p > .15$), suggesting mediation. To consider all relevant regressions in a single analysis, we ran a Sobel test. The results confirmed that the default index mediates our effects for participants in high- (S = 2.31, $p < .05$) but not in low- (S = 1.34, $p > .15$) time-pressure conditions.[3]

The results for the correction index displayed the opposite pattern. Under low-time-pressure conditions, the culture × appeal focus interaction was predictive of the correction index ($F_{1, 59} = 4.6$, $p < .05$), though this effect did not occur under high-time-pressure conditions ($F < .5$). Next, we focus on low-time-pressure conditions in which the correction index was predicted to mediate. Indeed, correction thoughts were predictive of evaluations when used as the sole predictor ($F_{1, 62} = 16.8$, $p < .001$) and when included in a model with appeal focus, culture, and the interaction of these two ($F_{1, 59} = 8.8$, $p < .05$). In the latter model, the appeal focus × culture interaction did not reach significance ($F < 1$), suggesting mediation in low-time-pressure conditions. The Sobel test results further confirmed that the correction index mediated our effects in low- (S = 1.99, $p < .05$) but not in high- (S = .04, $p > .20$) time-pressure conditions. The results of the mediation regressions for both the default and the correction indexes appear in Table 2.

Finally, to provide additional insight into the tendency to "seize and freeze" on default thoughts under high-time-pressure conditions (Kruglanski and Webster 1996), we coded the thoughts in an alternative way—one that relied on capturing the relative consistency of the valence across all the thoughts for the participant. Specifically, the same two independent coders assessed whether each reason mentioned either positive or negative aspects of the message or brand. We tallied the number of positively oriented reasons given by each participant as assessed by each coder; then, we averaged the two coders' tallies to give the number of positively oriented reasons. A similar calculation gave the number of negatively oriented reasons. We then compared

[3]Note that though dual-processing models (Chaiken and Trope 1999) have some principles in common with our framework, they do not account for the thought-content data. These models predict that message-focused, default thoughts should predominate and guide evaluations in low- but not high-time-pressure conditions; however, we found the opposite pattern. Relatedly, a 2 × 2 × 3 ANOVA of Study 3 data showed no effect of time pressure on the total number of thoughts reported ($F_{2, 178} = 1.90$, $p > .15$). Rather, this thought-content analysis suggests that the type of knowledge accessed drives our effects.

Table 2

STUDY 3: MEDIATION ANALYSES FOR DEFAULT AND CORRECTION INDEXES IN LOW- AND HIGH-TIME-PRESSURE CONDITIONS

Dependent Variable	*Independent Variable*	*Low Time Pressure*	*High Time Pressure*
Default Index			
1. Ad evaluation	Default thoughts	.39**	.41**
	Culture × appeal	.27*	.08
2. Ad evaluation	Default thoughts	.44**	.48**
3. Default thoughts	Culture × appeal	.18	.38**
Correction Index			
1. Ad evaluation	Correction thoughts	.29*	.21
	Culture × appeal	.02	.41**
2. Ad evaluation	Correction thoughts	.49**	.22
3. Correction thoughts	Culture × appeal	.48**	.01

*$p < .05$.

**$p < .01$.

Notes: We report the results for the three regressions used to test mediation. According to Sobel tests, the default index mediated the effects for high- (S = 2.31, $p < .025$) but not for low- (S = 1.34, $p > .15$) time-pressure conditions. The correction index mediated the effects for low- (S = 1.99, $p < .05$) but not for high- (S = .04, $p > .20$) time-pressure conditions.

the number of either positive or negative reasons, depending on which is greater, with the total number of reasons the participants had given. The resulting "consistency index" (α = .88) indicates for each participant the proportion of reasons fitting his or her dominant mode of thinking (i.e., favorable or unfavorable). We examined this index using a full-model ANOVA. Beyond a significant three-way interaction ($F_{2, 178} = 4.48$, $p < .05$), we found a main effect of time pressure ($F_{2, 178} = 9.91$, $p < .001$). Participants in high-time-pressure conditions had more consistent thinking than those in low-time-pressure conditions, and this effect applied to both U.S. (M = .88 versus .63; $F_{2, 178} = 6.76$, $p < .01$) and Hong Kong (M = .81 versus .69; $F_{2, 178} = 3.83$, $p < .05$) participants. Furthermore, consistent with the idea that people seize and freeze when they feel pressured, participants' consistency scores were indeed correlated with initial default thoughts ($\rho = .25$, $p < .05$). That is, participants in high-time-pressure conditions not only had initial (default) thoughts reflecting their own cultural orientation but also were likely to continue to think in the same way—either favorably or unfavorably—about the message.

Discussion

Both Chinese and American participants who felt that they had little time to digest the material in the advertisement were persuaded more by culture-consistent than by culture-inconsistent appeals, a pattern that failed to hold when they did not feel pressured. In moderate-time-pressure conditions, preferences for culture-consistent versus culture-inconsistent messages appeared (paralleling Aaker and Lee's [2001] findings, though our result did not reach significance). In low-time-pressure conditions, there was no indication of cultural inclinations. Our analysis of participants' reasons suggested that distinct knowledge types were called on in high- versus low-time-pressure conditions. Participants who felt pressured focused on message concepts and phrases, consistent with the notion that their default assessments took hold and remained unchallenged. Predominance of these default thoughts mediated our effects in high- but not in low-time-pressure conditions. However, when time pressure was low, people moved away from these default assessments, with an internal debate founded on personal knowledge apparently driving this adjustment.

GENERAL DISCUSSION

The results of four studies support the hypothesis that culture-based persuasion effects occur when information is processed in a cursory, spontaneous manner but dissipate when more deliberative processing occurs. Across the studies, North American participants were persuaded more by promotion than by prevention information, and the converse was true for Chinese participants, but only when participants' processing goals encouraged immediate, automatic decision making (pilot study, instructions; Study 1, priming) or when they felt unable to process thoroughly as a result of resource constraints, such as cognitive load (Study 2) or perceived time constraints (Study 3). When participants were encouraged to deliberate when processing the appeals or did not feel time pressure, they accessed personal knowledge, eliminating the culture-based effects. This pattern held across product categories and in both single-country (pilot study, Anglo-Americans versus Asian Americans) and two-country (Studies 1–3, Hong Kong versus United States) comparisons. Increased confidence in these effects and the underlying process was gained through the elimination of potential alternative explanations (e.g., demand effects, differential exposure time) and through the demonstration of mediation, in which the nature of thoughts shifted away from default message-focused ideas and toward personal experiences and knowledge as time pressure was relaxed.

These results suggest that the effectiveness of marketing communications that hinge on culture-specific values might be strongest when targeted viewers do not engage in deliberative, conscientious processing of the message. Thus, marketing vehicles that draw brief, focused attention (e.g., online banner advertisements, roadside billboards) may prove to be more effective for values-based advertising than more traditional modes, an insight useful for marketers who use message content that resonates with the cultural leanings of an entire society or who wish to address more specific groups or regions (Deshpandé and Stayman 1994).

Our findings also speak to the dual-process literature, suggesting the important role of cultural and personal knowledge in the two primary systems. Notably, this literature often emphasizes the desirability of thoughtful processing (see Chaiken and Trope 1999), which can bring personal knowledge to the fore of the mind. However, the current research suggests that the evocation of such personal knowledge mitigates planned persuasion effects, cautioning marketers from assuming that cultural knowledge is pervasive and consistently drawn on to inform evaluations. Indeed, both consumers and marketers would benefit from a deeper understanding of the research area explored herein. For example, do people derive optimal utility from decisions when they defer to their cultural inclinations or, alternatively, when they allow more personal thinking and experiences to guide them?

Although our work is grounded in a cognitive approach, it is of interest to consider these and related findings from a motivational perspective. For example, Aaker and Lee (2001) show that greater attention is associated with the processing of culture-compatible versus culture-incompatible messages, though our results indicate that compatibility effects arise when automatic, effortless processes guide judgments. Thus, the two sets of findings differ in their potential implications regarding the effects of motivation. Lee and Aaker (2004) shed further light on this issue, showing that greater processing fluency underlies more favorable evaluations in conditions of compatibility. Together, these articles suggest that compatibility effects occur when message information is processed readily and smoothly as a result of either aspects of the message itself (Lee and Aaker 2004) or situational factors, as suggested in the current research (see also Wang and Lee 2006).

Parallels can be drawn between our formulation and that offered by self-persuasion approaches (for a review, see Petty and Cacioppo 1996). Self-generated arguments often have a stronger effect on persuasion than those that are presented, because people tend to have a higher regard for and better memory of arguments that originate internally than those that originate externally (Petty and Cacioppo 1979). In the current research, participants appear to follow this pattern when personal and cultural knowledge conflict.

They give greater weight to personal recollections and arguments, which are self-generated, than to cultural knowledge, which might have a character more similar to external argumentation because the inputs are linked closely to message concepts (see Study 3, "Knowledge Content"). Further parallels could be explored. For example, a promising direction for future work is to explore whether the judgments generated under conditions of perceived low time pressure are more persistent than those generated under high time pressure (or cognitive load).

Understanding Cultural Influence

A key idea in our findings is that culture does not exert an unwavering effect on people across contexts. Cultural forces sometimes guide judgments and behaviors, and other times, they do not. This notion could be helpful in understanding conflicting findings in culture literature. For example, expected cultural differences in responses on values scales, which have been found in numerous studies (for a review, see Triandis 1995), sometimes fail to appear (e.g., Heine et al. 2002). Such failures tend to offer uninteresting findings and often remain unpublished. The current research implies that these different patterns across studies may be due, in part, to differences in the conditions under which participants provide their responses. Researchers should be careful to monitor factors that could influence the extent to which participants are thoughtful versus reactive when responding to questions. Seemingly innocuous factors could influence results, including the experiment's time of day, venue, and participation incentives.

Our findings also speak to recent work that shows dynamic shifts in the impact of culture (e.g., Chiu et al. 2000). The current research demonstrates that evaluative judgments, which might be assumed always to align with the implicit theories that stem from cultural knowledge, experience dynamic shifts as well. The evolved view of cultural influence that is emerging from this research stream suggests that stable, domain-general effects are few and far between. Important preconditions and qualifications for the effects of cultural background have been shown for a variety of phenomena, including self-definition (Ross, Xun, and Wilson 2002), social values (Briley and Wyer 2001), attributions (Hong et al. 2000), and decisions (Briley, Morris, and Simonson 2000).

Note that the findings in the work of Briley, Morris, and Simonson (2000), who show that searching for reasons to justify decisions activates cultural knowledge, might suggest that more general deliberation of the sort we examined herein can also bring cultural forces into play. However, our findings indicate the opposite. Thus, a conclusion that can be drawn from our findings is that the effects of deliberations that are directed toward the end result of providing reasons (as in the case in Briley, Morris, and Simonson 2000) and those that are not directed at all (as is the case herein) are different. The effects that Briley, Morris, and Simonson find have little to do with deliberations per se but rather are derived from people's focus on finding a plausible rationale for decisions.

The current work brings further insight to the foundations of culture's effects on judgments. Our results align with concepts presented in the automaticity literature (Hassin, Uleman, and Bargh 2005), which suggests that responses to certain situations people face in life become learned and, therefore, automatic as a result of repeated exposure. Thus, cultural influence might be better understood by conceptualizing it as an automatic response (similar to the responses found in the stereotyping literature; Banaji and Hardin 1996; Devine 1989), bringing to bear knowledge and findings from the rich automaticity literature. Some potentially valuable propositions can be crafted from this notion by associating the strength of cultural influence with that of automaticity susceptibility. For example, culture's effects on judgments and perhaps other psychological phenomena might be particularly strong when cognitive resources are limited. So, the effects of cultural priming on cognitive (Briley and Wyer 2001) and behavioral (LeBouef and Shafir 2003) responses might be moderated by available resources.

An additional insight that can be brought to bear on the current thinking in cultural psychology is the notion that two broad categories of knowledge, cultural and personal, contend to govern judgments. Our results suggest that cultural knowledge can have precedence when people are not able to give deliberated thought to a judgment. Under these conditions, knowledge that presents normative, culture-based rules comes into play, but when people are more thoughtful in developing judgments, knowledge that departs from these rules becomes prominent in the mind, sparking an internal debate. Apparently, ideas and thinking that are consistent with normative attitudes are often espoused as a "default," though notably, more unique, idiosyncratic thoughts come to the fore of the mind when people reflect on their more private experiences. These personal reflections allow the unique "individual" within every person, rather than the culture-bound part, to emerge.

Future Directions

Further research is needed, both in light of some limitations in this research (e.g., an exploration of whether crossover interactions occur with sufficient deliberation) and to work toward more substantive insights. For example, what is the basis of cultural versus personal knowledge, and what moderating conditions determine when one type will be activated? Lau, Chiu, and Lee (2001) argue that communication plays an important role in the evocation of cultural, shared knowledge, suggesting a link between the application of such knowledge and the familiarity of stimuli encountered. To illustrate, in one experiment, Hong Kong residents were asked to describe landmarks in Hong Kong, Macau, or New York City. When the landmarks were less familiar (e.g., in Macau), they provided more idiosyncratic information in their description and were less likely to mention shared knowledge (e.g., landmark names). The findings, in conjunction with those presented here, provide groundwork for building a framework and hypotheses about the type of knowledge accessed to evaluate familiar versus unfamiliar situations and stimuli.

Finally, our findings might offer useful insights into recent research on culture and information processing. For example, recent research has argued that national culture is predictive of processing style (Nisbett et al. 2001), such that North Americans are predisposed toward using the analytic mode and the Chinese are predisposed toward using the holistic mode. Our findings indicate that people's use of these styles can shift on the basis of the judgment context

presented; those who make immediate decisions or experience time pressure gravitate toward the automatic mode, regardless of cultural background. Thus, the results we present fit with recent literature, suggesting important qualifications for static cultural frameworks and illuminating the integral role of situational factors (Hong et al. 2000; Wang and Lee 2006).

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