Cultural Priming

Adopting the adversary's mindset to improve analysis

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Executive Summary

PURPOSE— To help government analysts better interpret and predict the behavior of adversaries from other cultures by reviewing the cultural priming literature and developing a theoretical foundation for understanding of Asian collectivistic cultures, including the ethnic groups of the Afghanistan and Pakistan regions.

CONCLUSIONS— Developing an effective analyst-relevant cultural priming technique will require accommodating the multiple dimensions of Asian collectivism, adopting scenario-based assessment measures, and implementing scrambled sentence and subliminal stimuli methods.

RELEVANCE— Accurate prediction of adversarial behavior is critical to successful analysis. It is to be expected that, like the general public, analysts vary greatly in their ability to adopt the mindsets of other cultures. Scientifically grounded methods like cultural priming could be used to help analysts learn during training to more easily shift their viewpoint to that of a collectivistic culture of interest.

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PURPOSE

Campaigns against insurgencies are won as much on the social landscape as they are on the battlefield. Such social landscapes differ as widely between countries as the physical terrain. For example, it is widely noted that Western cultures tend toward individualism (giving priority to individual goals) whereas Eastern cultures tend toward collectivism (giving priority to group needs).

Even when an analyst has the requisite detailed knowledge of cultural norms and values, he or she may be unconsciously biased to interpret the target situation in terms of one's own cultural framework (a "cultural lens"), thus causing him or her to miss features of situations that are critical for sense-making.

The natural tendency to view other societies through one's own cultural lens poses a challenge to analysts and their ability to arrive at correct conclusions. Although immersion is the best remedy for cultural near-sightedness, such an approach is not always practical for the analyst community.

The goal of this research program is to design analyst-relevant interventions (called 'cultural primes') that temporarily break one's native cultural lens by shifting one's sociocultural orientation to be more consistent with the target culture. This technique is intended to be especially applicable during analyst training to help teach mental flexibility and a better understanding of collectivistic cultures.

To maximize relevance to today's operational landscape, we take Afghanistan and Pakistan as an area of current military concern and develop a theoretical framework designed to integrate it with the more-studied Asian cultures of China and Japan, focusing on the problem of how an adversary might respond to conflicting social influences.

CONCLUSIONS

The following conclusions are based on the literature review.

1. In order for cultural priming to be useful in real-world settings, it needs to address the finer-grained cultural distinctions identified by cross-cultural survey research.
2. Cross-cultural research on differing types of social relations may illuminate the different forms of Asian collectivism.
3. Japanese, Chinese, and Afghani/Pakistani cultures can be described in terms of combinations of these proposed types of collectivism.
4. The recommended cultural priming method for analysts seeking to learn the mindset of such cultures are the Scrambled Sentence Task and the use of subliminal stimuli.
5. The next step is to develop scenarios designed to be sensitive to differences in cultural mindsets between Western, South Asian and East Asian respondents, using both psychometric and neuroimaging techniques.
6. The final step is to evaluate the effect of the cultural priming technique on analyst performance on these scenario-based measures.

RELEVANCE

Analysts attempt to understand an adversary's behavior to successfully predict his or her future behavior and increase mission success. Thus, adopting the perspective of an adversary is a vital skill for effective intelligence analysis. It is to be expected that, like the general public, analysts vary greatly in their ability to adopt the mindsets of other cultures. Scientifically grounded methods like cultural priming could be used to help analysts learn during training to more easily shift their viewpoint to that of a collectivistic culture of interest. With teaching methods like cultural priming, analysts may learn to better predict the effect of social influences on adversary decision-making. ■

Executive Report

PURPOSE

An explicit awareness that understanding cultural differences is critical to national security dates back to World War II, when American forces faced a Japanese enemy who were culturally committed to fighting to the death rather than face dishonor. President Roosevelt feared the only choices were using the atom bomb versus a bloody fight to the finish over the Japanese homeland. Cultural anthropologist Ruth Benedict provided a crucial analysis that the Japanese would peacefully accept surrender if commanded by their emperor, motivating the Allies to avoid charging him as a war criminal, and indeed the Allied troops were welcomed with open arms. In contrast, had they been consulted, cultural scientists would have likely predicted that Iraqis would not respond similarly to defeat. Knowing this, Coalition Forces could have better prepared for the years of insurgency following the end of the Second Gulf War campaign in 2003.

Campaigns against insurgencies are won as much on the social landscape as they are on the battlefield. Such social landscapes differ as widely between countries as the physical terrain. For example, it is widely noted that Western cultures tend toward individualism (giving priority to individual needs) whereas Eastern cultures tend toward collectivism (giving priority to group needs).

The natural tendency to view other societies through one's own cultural lens poses a challenge to the Intelligence Community and its ability to arrive at correct conclusions. Although immersion is the best remedy for cultural near-sightedness, such an approach is not necessarily practical for the analyst community.

Recent research on situated cognition, how people interpret or think of events in a given context, demonstrates that it is possible for subtle cues to shift the viewer into a different cultural mindset, much like putting on a pair of corrective lenses. Such cueing may be broadly referred to as 'cultural priming'.

The goal of this report is to develop a coherent theoretical foundation for developing cultural priming techniques that can help teach analysts how to adopt the perspective of Asian cultures of interest, specifically how an adversary might respond to conflicting social influences.

CONCLUSIONS

The following conclusions are based on the literature review. These findings will inform our empirical investigation.

1 **In order for cultural priming to be useful in real-world settings, it needs to address the richness of cultural distinctions identified by cross-cultural survey research.**

The goal of cross-cultural psychology is to characterize differences between cultures in terms of a small number of underlying dimensions. Relying primarily on cross-national survey methods, researchers have identified the Individualism-Collectivism (I-C) dimension as a crude but useful way to partition the world into cultural regions. Roughly speaking, members of Asian societies are collectivistic but members of Western cultures are individualistic. Researchers have also developed a set of finer-grained dimensions within I-C that together provide a richer account of cultural variability within regions (Table 1).

In parallel, social psychologists (who rely primarily on experimental laboratory methods) have taken the I-C distinction as a framework for understanding the role of culture in the way one perceives oneself relative to others (one's "self-construal"). This literature distinguishes between the independent self, those characteristics which describe the person in isolation (e.g., "smart"), and the interdependent self, those characteristics which are relative to the social context (e.g., "friend of Sam"). The independent self is said to be more salient to members of individualistic societies and the interdependent self is said to be more salient to members of collectivistic societies. Studies in this literature indicate that cultural priming can shift a person's attention between their independent and interdependent selves.

One important limitation of the priming studies is that the finer-grained dimensions identified by cross-cultural psychologists are not tested. This implies that current research using the priming techniques is cast too broadly to be relevant to distinguishing among cultures within regions (e.g. East Asia vs. South Asia). Therefore, a critical goal of this project is to expand the cultural priming methodology beyond I-C, with a focus on more fine-grained dimensions of difference.

2 **Cross-cultural research on differing types of social relations may illuminate different forms of Asian collectivism.**

One prominent cross-cultural model, the Relational Models Theory (Fiske, 1992, 2004), proposes that there are four mental models by which one might represent how one relates to others: Communal Sharing (CS) is based on representing another person or a group as indistinguishable from one's self, resulting in limitless commitment to take on suffering in order to ensure the well-being of others. Authority Ranking (AR) is based on hierarchical relationships (e.g. employee-manager; private-sergeant), resulting in the tendency to rank people by importance. Equality Matching (EM) is based on making sure that the relationship between two people is on-par in terms of obligations, resulting in the tendency to pay special attention to imbalances in the exchange of favors and payments. Market Pricing (MP) is founded on assigning values to people and things, resulting in a tendency to perform cost-benefit judgments about in which relationships to engage.

The reasoning underlying self-construal theory suggests that such different representations of how one relates to others should result in different kinds of interdependent self-construal. In Figure 1 we present our proposal for the consequences of these four relational models for the interdependent self. Each part of the figure illustrates a different representation of how the self relates to the social context, mediated by each of

the different types of relational models. The implication of these four cognitive models is, in turn, that there should be four types (or aspects) of collectivism mediated by these four types of interdependent selves.

While this framework can potentially provide a parsimonious systematization of cultural differences in types of collectivism that can guide the application of cultural priming, it should also be noted that cultures differ in other regards. For example, Schwartz (1999) has identified core cultural values that summarize important differences between cultures: Power, Achievement, Hedonism, Stimulation, Self-direction, Universalism, Benevolence, Tradition, and Conformity.

3 Japanese, Chinese, and Afghani/Pakistani cultures can be described in terms of combinations of these proposed types of collectivism.

Inherent in Relational Models Theory, although not previously explored, is the implication that cultures can be characterized as rank ordered combinations of the different types. By way of illustrating how this theoretical framework can be applied to real Asian cultures, we apply it to cultural anthropological observations of Japan, China, and Afghanistan/Pakistan (keeping in mind that such generalizations must always be tempered by the recognition of individual differences, regional variations, and ongoing cultural evolution).

By this analysis, Japanese culture can be characterized as: Authority Ranking > Market Pricing > Equality Matching > Communal Sharing. Thus, the paramount principle is maintenance of the social order, *wa*. Secondarily, they evince a strong goal-oriented team mentality, both at work and at home. Traditionally, salarymen stay together after work to further bond together at bars and restaurants. At home, the household is likewise treated as a team unit, with even servants treated as being closer than siblings who have left to live in another household.

In contrast, Chinese culture can be characterized as: Authority Ranking > Communal Sharing > Equality Matching > Market Pricing. Whereas the Chinese also value highly the maintenance of the social order, their secondary focus is on shared communities, principally the extended family. Indeed, in historical times, it was enshrined in law that one was allowed to conceal the crimes of fellow family members and children who informed on their parents would be punished. Thus, although both Japan and China are considered to be collectivist societies, in Japan work group membership is strong and family ties (even to siblings once they leave the household) are weak, whereas in China the converse is true.

Information on Afghani/Pakistani culture is more limited but we suggest that it can be characterized as: Market Pricing > Communal Sharing > Equality Matching > Authority Ranking. Thus, while also considered to be collectivist, unlike the Japanese and the Chinese, the culture is primarily characterized by a fluid process in which groupings ebb and flow according to the gain and loss of reputation of the principal actors. To some extent, this cultural dynamic can be ascribed to the pastoral nomadic heritage of many of the peoples of this region.

4 The recommended cultural priming method for analysts seeking to adopt the mindset of such cultures are the Scrambled Sentence Task and the use of subliminal stimuli.

The Scrambled Sentence Task (SST) has been used in the social psychology literature to cue independent and interdependent social orientations. A participant is presented with a set of words and asked to generate as many English sentences as possible using at least 2 words from the set. For example, given the set "I, me, mine, distinct, different, competitive," one can generate "I am different from most people" as a valid sentence. The underlying processing consequence of generating the sentences is thinking about the self as distinct from others (an independent orientation). An example of a set that cues

interdependence is "we, us, ours, join, similar, alike." The SST has features that make it or its analogs attractive to possible implementation in the workplace.

First, it is a relatively fast and easy exercise to perform. Second, there are potentially a large number of sentence sets that can cue a particular orientation. This means that the intervention can have sufficient variety across administrations so as not to cause boredom and the corresponding drop in attention (also referred to as 'habituation'). Finally, it may be of additional use for language analysts if sentences are presented in the target language. Under these conditions, the task can serve as a language warm-up task.

Subliminal primes are presented in such a way that the participant is not consciously aware of the content of the primed stimulus. Primes are typically presented very briefly and perceptual masking is employed to further hinder explicit awareness. Typically, the participant is doing an unrelated task that also carries subliminal primes. One distinct advantage of this method is that it can be extremely unobtrusive and thus not constitute an additional burden upon the analyst. Although the literature shows that subliminal primes can be as effective as consciously-processed primes (e.g. SST), their deployment in the workplace can present some technical challenges (e.g. ensuring that the person is attending to the task). Clearly more research is needed to ascertain whether any of these methods are truly appropriate or whether new and different techniques are warranted. This effort is undertaken in the final phase of the project.

5 The next step is to develop scenarios designed to be sensitive to differences in cultural mindsets between Western, South Asian and East Asian respondents, using both psychometric and neuroimaging techniques.

In the next phase of this project, we will develop a set of measures designed to be sensitive to differences in cultural mindsets between Western, South Asian and East Asian respondents. These measures will consist of scenarios designed to take advantages of predicted differences between cultural groups. For example, when faced with a scenario of deciding whether to hire someone to whom one owes a favor versus someone

who best fits the formal criteria, cultural groups will likely construe the situation as being about different relational models (Equality Matching vs. Authority Ranking) and would likely make different choices.

In order to show group differences, we will study Chinese and Afghani immigrant groups living in the U.S. and compare their responses to those of American undergraduate students (or matched controls). Once we have developed a set of test items sensitive to cultural differences, we can use these as a measure of culture knowledge if administered to members of U.S. cultures, including analysts. Following this logic, an analyst's knowledge of a culture is high to the degree that his or her responses concord with those provided by members of the culture of interest.

We will also assess construct validity of these scenario-based measures. We will include survey measures to assess

divergent validity against alternative measures, particularly the Schwartz Cultural Values scale and the Triandis Polythetic Scale of Individualism-Collectivism. Additionally, neuroimaging methods will be applied to verify whether the four putative relational measures do indeed represent the utilization of four different neurocognitive capacities.

6 **The final step is to evaluate the effect of the cultural priming technique on analyst performance on these scenario-based measures of collectivism.**

In the final phase of this project, we will then utilize the scenario-based measure to assess the effects of cultural priming. Analysts will make judgments about the scenarios with and without appropriate cultural priming to determine whether the procedure improves speed and

accuracy of performance.

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RELEVANCE

Analysts attempt to understand an adversary's behavior to successfully predict his or her future behavior and increase mission success. Thus, adopting the perspective of an adversary is a vital skill for effective intelligence analysis. It is to be expected that, like the general public, analysts vary greatly in their ability to adopt the mindsets of other cultures. Scientifically grounded methods like cultural priming could be used to help analysts learn during training to more easily shift their viewpoint to that of a collectivistic culture of interest. With teaching methods like cultural priming, analysts may learn to better predict the effect of social influences on adversary decision-making.■
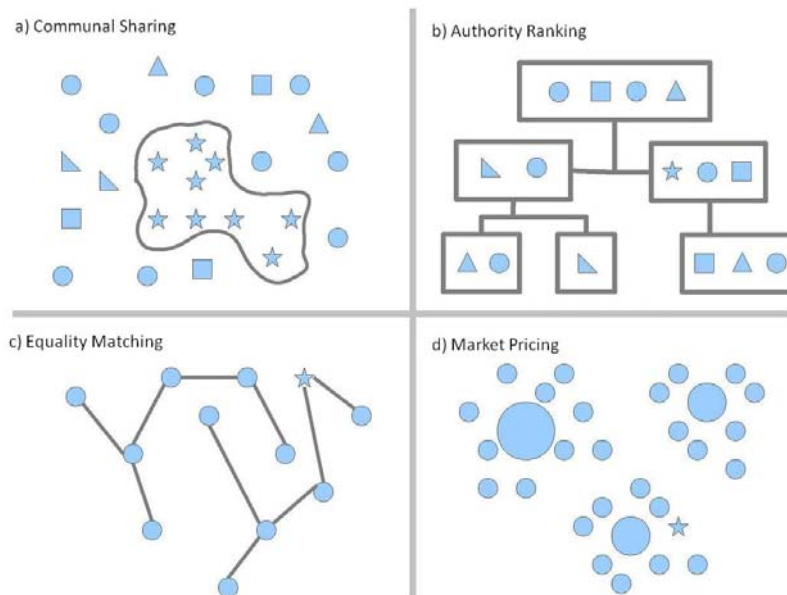

Figure 1. The Four Kinds of Interdependent Self-Construal According to Relational Models Theory. The relational models are depicted from the perspective of an individual participant (observer) represented by a star: a) For Communal Sharing, the individuals inside the shape are all stars, highlighting the observers' perceived similarity to those with whom he or she shares resources. b) Authority Ranking illustrates the division of individuals into distinct social categories. c) Equality Matching focuses on the dyadic connections between individuals; the line connecting two nodes represents the reciprocal relationship between them. d) Market Pricing illustrates the tendency of individuals to gravitate towards others who control or represent a valuable asset.

Table 1. The Many Faces of Individualism and Collectivism (adapted from Oyserman et al, 2002).

Individualism	Collectivism
(1) The importance placed on one's autonomy (**independence**)	(1) How individuals relate with one another (**relationality**)
(2) **Personal goals** one wants to achieve	(2) The extent to which belonging to a group is important (**group belonging**)
(3) Competing for status or resources (**competition**)	(3) One's sense of obligation to others in one's group (**duty**)
(4) Asserting one's individuality (**uniqueness**)	(4) Importance of maintaining a balanced life with others and nature (**harmony**)
(5) Need and appreciation for separation from others (**privacy**)	(5) Social support network in which information is sought from elders (**advice-seeking**)
(6) Acquiring knowledge of oneself (**self-knowledge**)	(6) Indirect communication that requires a great deal of attention to relational cues (**contextualization**)
(7) Direct, unambiguous **communication**	(7) Clear demarcation of power, roles, and status (**hierarchy**)
	(8) **Preference for group interaction**

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Cultural Priming

Adopting the adversary's mindset to improve analysis

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CONTENTS

Chapter 1: Cultural Priming: A Research Program

An explicit awareness that understanding cultural differences is critical for national security dates back to World War II, when American forces were confounded by Japanese behavior (Benedict, 1946/2005). For instance, the Japanese commitment to fighting to the death rather than facing dishonor, which led to bloody fights for each small island. Trepidation that these horrific fights were merely preludes for the invasion of mainland Japan eventually led to the decision to drop the atomic bomb. Conversely, Japanese prisoners (who were usually captured due to injuries instead of surrender) were often surprisingly helpful to their captors by providing intelligence information (Benedict, 1946/2005, pp. 41-42). A central issue for intelligence analysts was whether the Japanese could be convinced to surrender and, if so, how would they act in defeat? The services of cultural anthropologist Ruth Benedict were invaluable for determining that the Japanese would surrender if commanded by their emperor. Indeed, once the emperor proclaimed the surrender, American G.I.'s were pleasantly surprised by how peaceable the populace became and they were soon fearlessly buying souvenirs in shops. In contrast, consulting cultural scientists would have likely predicted that Iraqis would not respond similarly to defeat. Knowing this, Coalition Forces could have better prepared for years of insurgency following the end of the Second Gulf War campaign in 2003.

Part of this intelligence lapse may rest, in part, on the fact that analysts, like most people, are likely to interpret data through their own cultural lens. This means that one's perceptual lens is influenced by values, norms, behaviors, and beliefs that are implicitly shared among members of a social system and passed down from one generation to the next. Viewing situations through one's own cultural lens poses a challenge to the Intelligence Community, as it limits the extent to which cultural nuances are registered and utilized in interpretation. In the case of the Second Gulf War, it seems likely that American policy was influenced by a cultural penchant to focus on the role of the individual (i.e., Saddam Hussein), thus missing the potential for problems to arise from the social context (e.g., ethnic, religious, and tribalistic divisions).

The question, then, is how to help analysts raised in the American context shift their attention to a different cultural perspective. Although cultural immersion is likely to be the best approach, such a remedy is not necessarily practical for the analyst community. Fortunately, recent research on **situated cognition**, how people interpret or think of events in a given context, demonstrates that it is possible to cue people to think in similar ways to culturally different others (e.g., Gardner, Gabriel, & Lee, 1999; Han, 2010; Oyserman & Lee, 2008a, 2009). This does not mean one modifies culture or dominant cultural behaviors to which one typically subscribes; rather, in a given situation with the right set of cues (what is termed cultural priming), people can put themselves in "others' shoes" and understand his or her mindset. Such a technique could serve as a training aid to help trainees learn to adopt a new cultural mindset or as a tool to help facilitate analysis of culturally difficult materials.

Cultural priming has been most studied as a contrast between American individualism (characterized by a focus on the individual) and Asian collectivism (characterized by a focus on the social context). One can therefore expect that this technique could be especially helpful for interpreting situations that involve predicting the response of individuals to social influences. Analyst-relevant examples include developing effective incentives for insurgents to accept peace offers, predicting which government faction will prevail in a policy dispute over foreign policy, or assessing the potential resistance of a ruling elite of an autocratic regime to popular unrest. In each of these cases, the American bias will be to focus on the personality and motivations of the individual leaders while discounting their social context, and yet the most important factor may be the social dynamics, especially in a collectivistic society (even an absolute ruler cannot prevail if those around him collectively turn against him).

Based on this reasoning, the present research program will first focus on developing scenario-based measures that are designed to be sensitive to differences in cultural mindsets between Western, South Asian and East Asian respondents. These measures will consist of scenarios designed to take advantages of predicted differences between cultural groups. For example, when faced with a scenario of deciding whether to hire someone to whom one owes a favor versus someone who best fits the formal criteria, cultural groups will likely make different choices. We reason that an analyst can be said to have adopted the appropriate mindset to the degree that his or her responses concord with those provided by members of the culture of interest. We would then assess the effectiveness of cultural priming for helping analysts adopt the appropriate mindset on a structured analytic task involving these scenarios, either for training purposes or for the workplace setting.

This technical report is intended to establish the theoretical foundation for this research effort. First we review the literature on Asian collectivism, outlining a theoretical framework by which to approach this topic. Next, we illustrate how this model can be applied to American, Chinese, Japanese, and Afghani/Pakistani cultures. This technical report then reviews the current literature on the cultural priming technique. Finally, recommendations are made on the most promising approach for using cultural priming as an analytic technique and what issues need to be resolved. The intended audience is the client rather than academics, and so the intention is to make it accessible while still being scientifically grounded.

Chapter 2: What is Collectivism?

Culture is a latent construct that can be understood through collective, learned, and implicitly shared assumptions, values, attitudes, beliefs, behavioral norms, schemata, customs, symbols, traditions, and rituals that are passed down from one generation to the next and evolve over time. Thus, culture is a macro construct that provides a framework that helps us interpret and explain how and why individuals think, feel, and act (Bond & Leung, 2009; Kashima, 2009). Oyserman and Sorensen (2009) further purport that the meaning spun onto a situation yields a culturally influenced effect (see Figure 2.1.).

As we proceed with this discussion of culture, it is important to caution against oversimplifications. For example, nations, societies, and geopolitical regions are not synonymous to cultures and that there are many social systems within those boundaries and that cross those boundaries.

Furthermore, it is important to keep in mind that cultural level descriptions refer to the general tendencies of the overall population and the manner in which its traditions and values tend to reinforce these central tendencies. It should not be assumed that every member of the culture is the same (Hofstede, 1980) – merely that in the absence of information about a person, knowledge about the culture allows one to make better guesses than random chance. Such cultural level knowledge is also useful for understanding the motivations behind an individual's behaviors, regardless of whether he or she conformed to this environment or rebelled against it.

FIGURE 2.1. SITUATED MEANING AS A MEDIATOR OF THE RELATIONSHIP BETWEEN CULTURAL CONTEXT AND INDIVIDUALS' AFFECT, BEHAVIOR, AND/OR COGNITION

One of the best known dimensions of cultural differences is that of individualism versus collectivism. A prominent cross-cultural psychologist, Dr. Harry Triandis (Triandis, 1995, p. 2), defines collectivism:

"as a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of, and duties imposed by, those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives. A preliminary definition of individualism is a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preferences, needs, rights, and the contracts they have established with others; give priority to their personal goals over the goals of others; and emphasize rational analyses of the advantages and disadvantages to associating with others."

The proposition that American culture is individualistic and Asian cultures are collectivistic enjoys cross-disciplinary consensus and is considered a foundation assumption in cultural psychology. In turn, this consensus is based on strong congruity with core cultural values, such that scientists from both types of cultures comfortably treat the distinction as given. Indeed, for decades after Hofstede's (1980) seminal study, scholars focused primarily on individualism and collectivism, making it the seemingly only meaningful cultural characteristic or "a catchall dimension" to describe social systems (Schwartz, 2009, p. 133).

It has become increasingly clear that there are multiple types of individualism and collectivism (Oyserman, Coon, & Kemmelmeier, 2002). According to Oyserman and colleagues, at the individual level of analysis, individualism can be depicted in terms of:

(1) The importance placed on one's autonomy (**independence**), but also in terms of
(2) **Personal goals** one wants to achieve,
(3) Competing for status or resources (**competition**),
(4) Asserting one's individuality (**uniqueness**),

(5) Need and appreciation for separation from others (**privacy**),
(6) Acquiring knowledge of oneself (**self-knowledge**), and
(7) **Direct**, unambiguous **communication**.

Oyserman and colleagues also found that collectivism can be depicted in terms of:

(1) How individuals relate with one another (**relationality**),
(2) The extent to which belonging to a group is important (**group belonging**),
(3) One's sense of obligation to others in one's group (**duty**),
(4) Importance of maintaining a balanced life with others and nature (**harmony**),
(5) Social support network in which information is sought from elders (**advice-seeking**),
(6) Indirect communication that requires a great deal of attention to relational cues (**contextualization**),
(7) Clear demarcation of power, roles, and status (**hierarchy**), and
(8) **Preference for group interaction**.

Despite the demarcation of these components as belonging to either individualism or collectivism, some of the components under individualism are not in opposition to some of the components of collectivism. In fact, some are complementary. For example, invoking competition cannot also invoke harmony, but invoking competition can still invoke belonging to a group. In fact, it is quite possible that as a result of belonging to a group, individuals will compete with other groups for resources to sustain their own group. Likewise, invoking hierarchy cannot also invoke personal goals, but it can invoke direct communication. Subsequent chapters of this paper focus on different types of collectivism in relation to other culture theories as we attempt to better understand East Asian and South Asian cultures.

We suggest that it might be best to conceptualize the individualism-collectivism dichotomy, formulated at the societal level, as describing the overall characteristics of how a culture is organized rather than describing how members think. For example, there are multiple ways an individual could be led to act to meet the needs of their social collective above individual needs, such as obedience or altruism. While cultural level descriptors are important for understanding overall social contexts, when analysts seek to adopt the mindset of a specific adversary, what is vital is an understanding of how an individual member of such a culture thinks. This report will therefore focus on different cognitive and motivational processes that would explain how different aspects of a collectivistic cultural context would influence behaviors. In doing so, it will be seen that Asian collectivistic cultures are not monolithic and can be distinguished in important ways.

The starting point for this cognitive/motivational approach to collectivism is self-construal, or how the self is mentally represented (Markus & Kitayama, 1991; Shweder & Bourne, 1984; Triandis, 1989). It is said that in individualistic Western cultures, members are encouraged to construe the self as being independent, which is to say that people are encouraged "to become independent from others and to discover and express one's unique attributes" (Markus & Kitayama, 1991, p. 226). In contrast, members of collectivistic Asian cultures are encouraged to perceive the self in terms of interdependence, which "entails seeing oneself as part of an encompassing social relationship and recognizing that one's behavior is determined, contingent on, and, to a large extent organized by what the actor perceives to be the thoughts, feelings, and actions of others in the relationship" (Markus & Kitayama, 1991, p. 227). Furthermore, members of both cultural types have both independent and interdependent aspects of their self-concept, and will automatically shift between the two based on the situation.

Empirical support for this proposition has been provided by cultural priming studies. In the first such study, Brewer and Gardner (1996) found that Americans were influenced to respond more independently or interdependently on questionnaires by the simple expedient of having them circle pronouns in a story (e.g., "I" or "mine" vs. "we" or "us"). In a follow-up study Gardner, Gabriel, and Lee (1999) showed these effects apply to both Americans and Hong Kong Chinese, suggesting some differences between members of individualistic and collectivistic cultures might be due to default orientation (independent vs. interdependent) as socialized through upbringing.

ADAPTING THE RELATIONAL MODELS THEORY TO SELF-CONSTRUAL THEORY

The Relational Models Theory (RMT) (Fiske, 1992, 2004) is especially promising for adapting to interdependent self-construals because it is structured in terms of the types of interpersonal/economic interactions characteristic of different cultures. With some modest effort, it can be adapted to describe types of interdependent self-construals. First the relational models are described in detail. This chapter then makes a novel contribution by extending RMT to the self-construal literature, outlining the expected consequences of each relational model for the interdependent self and how each could lead to a form of collectivism.

RELATIONAL MODELS THEORY

The core aspect of RMT consists of four basic mechanisms of conceptualizing social interactions, relational models, that are biologically determined and hence universal (Fiske, 1992). Each such cognitive module in turn naturally affords a different type of social interaction. Cultures elaborate on these fundamental models of interaction, providing them with distinctive affective and behavioral characteristics (Fiske, 2004). Thus, while the core relational models are universal, the way in which they are expressed will differ across cultures. The theory comprises four elementary models: Communal Sharing, Authority Ranking, Equality Matching, and Market Pricing.

Communal Sharing is based on the cognitive operation of grouping items into separate categories based on equivalence (as in Animals, Vegetables, and Minerals). Fiske proposes that thinking about social interactions in this fashion results in the tendency to treat sets of similarly categorized people as if they were identical. In particular, it causes one to treat those belonging to one's own group, however defined, equally to oneself. In the RMT questionnaire (Haslam, 1995; Haslam & Fiske, 1999), which applies this model to characterizing personal relationships, Communal Sharing items include "If either of you needs something, the other gives it without expecting anything in return" and "Many important things you use belong to the two of you together, not to either one of you separately."

Authority Ranking is fundamentally based on the cognitive operation of ranking items in a rigid order. Fiske proposes that thinking about social interactions in this way results in a tendency to focus on ranking people by importance, although culture must determine the criterion by which the ranking is performed (as in age or wealth). In the RMT questionnaire (Haslam, 1995; Haslam & Fiske, 1999), some Authority Ranking items are "One of us sometimes has to turn over things to the other, who doesn't necessarily have to give them back" and "One of you is entitled to more than the other."

Equality Matching is based on the cognitive operation of judging relative sizes. Fiske posits that thinking about social interactions in this fashion results in paying special attention to imbalances in the exchange of favors and payments. In the RMT questionnaire (Haslam, 1995; Haslam & Fiske, 1999), Equality Matching questions include "We keep track of what we give to each other, in order to try to give back the same kind of things in return eventually; we each know when things are uneven" and "You typically divide things up into shares that are the same size."

Finally, Market Pricing is founded on the cognitive operation of assigning values, including both positive and negative. Fiske theorizes that thinking about social interactions in this manner leads to making cost-benefit judgments about in which relationships to engage. In the RMT questionnaire (Haslam, 1995; Haslam & Fiske, 1999), some Market Pricing items are "What you get from this person is directly proportional to how much you give them" and "You divide things up according to how much each of you has paid or contributed."

SELF-CONSTRUAL TYPES

Having thus defined the relational models in this manner, it follows that interdependent selves ruled by each of these models would intrinsically differ. Figure 2.2. depicts how such self-construals might be represented in an embedded social context. If the interdependent self-construal is strong enough to override the individual's independent self-construal, then the individual could be characterized as being a type of collectivist as the needs of others (including those of the group) would outweigh individualistic tendencies. One can conceptualize the difference between individualism and collectivism as analogous to the difference between foreground and background in perceptual figures. In each relational model (as can be seen in Figure 2.2.) both the self and the social context are represented. Whether one is individualistic or collectivistic depends on one's focus on the self (the independent self) or social context (the interdependent self). The type of collectivism, then, depends on the nature of the relational model(s) being utilized.
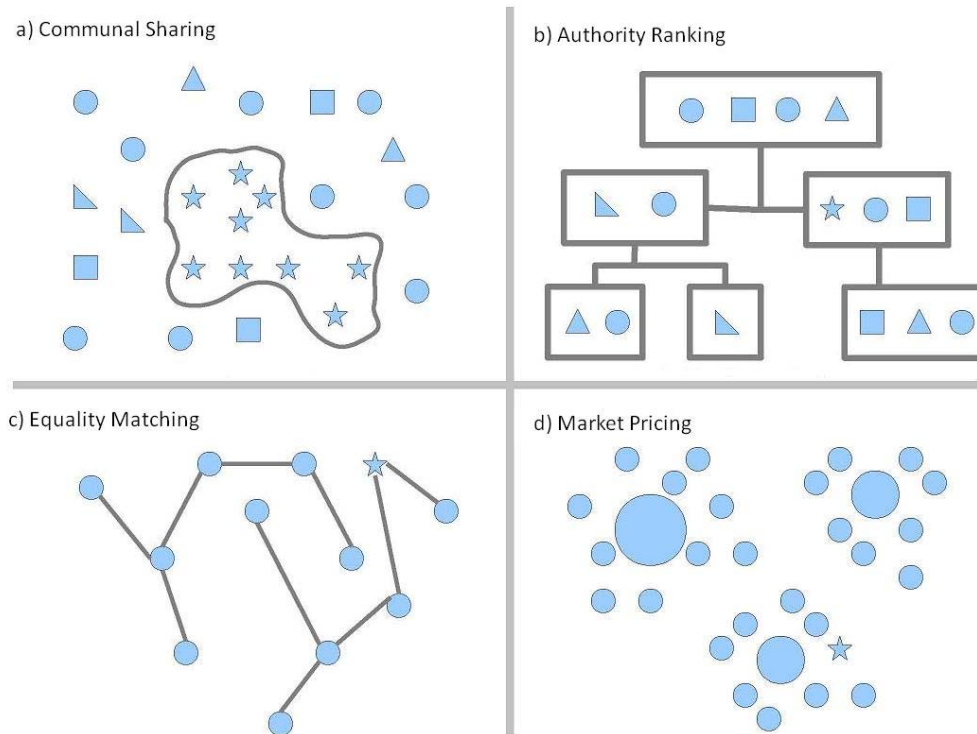
FIGURE 2.2. **THE FOUR KINDS OF INTERDEPENDENT SELF-CONSTRUAL ACCORDING TO RELATIONAL MODELS THEORY.**

The relational models are depicted from the perspective of an individual participant (observer) represented by a star: a) For Communal Sharing, the individuals inside the shape are all stars, highlighting the observers' perceived similarity to those with whom he or she shares resources. b) Authority Ranking illustrates the division of individuals into distinct social categories. c) Equality Matching focuses on the dyadic connections between individuals; the line connecting two nodes represents the reciprocal relationship between them. d) Market Pricing illustrates the tendency of individuals to gravitate towards others who control or represent a valuable asset.

Communal sharing. We suggest that RMT's Communal Sharing results in a focus on the individual characteristics of others that are perceived as being points of similarity. Individuals who are perceived as being sufficiently similar are treated as interchangeable. "In this kind of relationship, the members of a group or dyad treat each other as all the same, focusing on commonalities and disregarding distinct individual identities" (Fiske, 1992, p. 690). Kinship bonds seem to be the most common and strongest example of Communal Sharing relational models since close relatives are normally perceived as being quite similar by both nature (siblings share, on average, 50% of their genes) and nurture (having been raised in the same environment). The grounds for judging similarity can vary, potentially expanding the definition of similarity to all humans, in contrast to animals, for example.

We suggest that Communal Sharing results in perceiving the interdependent self as being part of a larger group of similar others (see . 2.2a). In such an interdependent self-construal, one might conceive of the self in terms of the shared characteristics that define the group rather than by the individual characteristics that distinguish one from the other members of the group. Furthermore, the need to maintain the similarity criteria can result in conformity (Roccas & McCauley, 2004), as in dressing conventions for Goth cliques, who routinely dress all in black as part of their subculture. This type of similarity-based grouping is posited in contrast to types of grouping mediated by the other relational models (especially groups formed on the basis of shared purpose such as teams), as described in the following paragraphs.

A society dominated by Communal Sharing could be described as being collectivistic if the focus is on the social context. As described by Fiske, "People in a Communal Sharing relationship often think of themselves as sharing some common substance (e.g., 'blood'), and hence think that it is natural to be relatively kind and altruistic to people of their own kind" (Fiske, 1992, p. 691). Thus, the needs of the other members are felt as one's own and can outweigh one's own personal goals and desires. Contrary to some thinkers (Triandis, 1989), we suggest it is not the only relational model that can result in collectivistic behavior.

Authority Ranking. We suggest that RMT's Authority Ranking results in a focus on the authority structure of a social context. Attention is directed towards the cues denoting the social category, resulting in members of each category being treated as interchangeable. Examples of such social categories include occupations (e.g., doctor), castes, and functions (e.g., mentor). We suggest that when focused on this relational model, the focus is on the social structure rather than the individual categories that comprise it. Thus, one's attitude would be directed toward the structure as a whole rather than one's niche within it. One might positively evaluate the structure as a whole (and thus be satisfied with contributing to its harmonious efficiency in some capacity) or one might negatively evaluate the structure and reject it entirely. It is also possible to perceive a portion as being defective and in need of repair while continuing to value the enterprise as a whole.

One of the most important aspects of this ranking, is that many categories are associated with authority over specific other categories, regardless of the person holding the status (Bierstedt, 1950). In American culture, a canonical example is a football referee, who is relatively faceless as an individual but nonetheless wields great authority over the players within the boundaries of his role. This kind of authority appears to be defined in a pairwise fashion between social categories rather than on the basis of global value importance. For example, the owner of a football team also has authority over the players but not over the referees or vice versa.

We suggest that Authority Ranking results in a perception of the interdependent self as being embedded in a series of relatively rigid social categories, some of which are situated over another category (see Figure 2.2.b). A succinct description is: "The Indian does not have the sharp distinction of 'them' and 'us' between two different groups. Among the various Indian groups, A, B, C, etc., one man happens to belong to A, while another is of B; A, B, C, and so forth together form one society " (Nakane, 1970, p. 21). While this description nicely summarizes an Authority Ranking perspective, it should not be taken as a statement that the Indian caste system is purely Authority Ranking; the following chapter argues that all societies are best understood as resulting from different combinations of the relational models. In a collective society dominated by Authority Ranking self-construals, interactions are controlled by the authority and privileges attendant to a social category rather than the independent characteristics of the actors.

Members of cultures dominated by Authority Ranking can qualify as collectivistic in that individual characteristics are ignored and personal goals and desires are subordinated to the dictates of the role, which in turn serves some function in the overall social structure.

Equality Matching. We suggest that RMT's Equality Matching results in a focus on actors made salient by past exchanges and associated memories of debts unpaid. The simple act of exchanging favors makes the other person significant and salient, compared to the masses of people with whom no such exchange has been made. Such past exchanges, even if completed in both directions, makes likely the possibility that more such exchanges will be made in the future.

We suggest that Equality Matching results in perceiving the interdependent self as being connected to specific individuals with whom dyadic exchanges have been made so that a running account can be made of current debts. In a society dominated by such self-construals, interactions are controlled by the present degree of debt or the potential for future favors. In American culture, the practices of exchanging gifts and cards for Christmas are simple examples of forming and maintaining such bonds. In the context of this relational model, a person with many such connections may be perceived as "well-connected," a representation that emphasizes this relational model over other grounds for representation (see Figure 2.2.c). Members of cultures dominated by Equality Matching can qualify as collectivistic in that the need to maintain these social connections and to repay favors may outweigh personal goals and desires if they focus on their social context (the debt owed to others) rather than the self (the debt owed to the self). It is suggested that this type of interdependent self-construal, perhaps in combination with Communal Sharing, corresponds to what is elsewhere termed *relational* self-construal (Brewer & Gardner, 1996; Gabriel & Gardner, 1999; Seeley, Gardner, Pennington, & Gabriel, 2003).

Market Pricing. We suggest that RMT's Market Pricing results in a focus on the perceived reward values of others. Attention is directed toward cues that denote the potential utility of others, including status symbols and respect accorded by others. While in this case there is no inherent authority accruing to individuals, the utility value of an individual provides them with influence as others will not wish to jeopardize the future potential to benefit from the respected individual. They will therefore be more likely to be persuaded by the respected individual and to agree to provide favors.

We suggest that Market Pricing results in a perception of the interdependent self as moving in an abstract decision space where every actor has been assigned an affective value by the observer, either attractive (positive) or repulsive (negative), based on their perceived potential reward value. To the extent that such valuations are compatible, this process can result in associative groupings. This relational model would thus result in a self-construal consisting of a representation of the self, associated with one's peer group and separate from competing peer groups (see Figure 2.2.d). Early work on formally studying such social representations can be seen in Heider's Balance Theory (Heider, 1982), which analyzed the stability of social groupings based on the valence of their mutual regard. It is suggested that this type of interdependent self-

construal, perhaps in combination with Authority Ranking, corresponds to what has elsewhere been termed *collective* self-construal (Brewer & Gardner, 1996; Gabriel & Gardner, 1999; Seeley, et al., 2003).

While Market Pricing has been identified as corresponding to individualistic striving for achievement by some (Triandis, 1989), we argue that it can also result in collectivistic behavior (defined, again, as putting the interests of the group above those of oneself) if one focuses on the social context rather than the self. The key point is that the Market Pricing influence is bidirectional in that maintaining one's level of positive regard (such as respect) requires responding to the approval of one's peers. For example, a fundamentalist who greatly respects the members of a religious congregation might need to invest considerable effort in studying the relevant scriptures, attending services, and foregoing material pleasures, in order to retain membership and to enjoy its approval (to the extent that these behaviors are driven by a desire to maintain the respect of the peer community rather than by an individualistic desire to express the self). Since the influence is bidirectional, members of cultures dominated by Market Pricing can qualify as collectivistic in that individual characteristics are ignored (except insofar as they are relevant to the valuing system) and personal goals and desires can be overridden by the massed influence of the surrounding actors (if the focus is on the interdependent self and its relation to the social context rather than one's independent self). As one writer put it, "Much of the time the individual's actions, far from being directed by his own wishes, are in effect dictated by the necessity of meeting the expectations of others" (Ho, 1976, p. 873). Indeed, one can foresee such a process resulting in strong conformity pressures as all the actors seek to gain the approval of their peers.

SELF-CONSTRUAL RANKINGS

It is inherent in the manner in which the RMT model is presently operationalized (Haslam, 1995; Haslam & Fiske, 1999) as unipolar dimensions that the measures are continuous rather than categorical. In other words, whether one is considering members of a culture or the general nature of a society at large, each instance is described as being a combination of each RMT type but with different weightings. This approach makes sense in that given that each type is seen as reflecting an evolutionarily determined cognitive module, one would expect that all humans would express all four, simply in different proportions. This ramification of the model has not been previously explored to our knowledge but proves to be highly relevant when differentiating Asian cultures.

We reason that to the extent that these representational systems highlight different aspects of social situations, they can sometimes bias the decision-making system towards different conclusions. Cultures then differ in the extent to which they inculcate reliance on a given representational system and the extent to which they prioritize one system over another. Thus, for a situation which can be conceptualized either in an Equality Matching or a Communal Sharing manner, members of an Equality Matching > Communal Sharing culture will tend to treat it as an Equality Matching situation whereas members of a Communal Sharing > Equality Matching culture will tend to treat it as a Communal Sharing situation. Furthermore, if two relational models conflict (wherein one model would dictate maintaining the relationship and the other would dictate breaking off the relationship), we hypothesize that the subordinate relational model will tend to be revised in the direction of the dominant relational model. One can therefore characterize cultures by an order of precedence between the four types of relational models, as illustrated in the following chapter.

CONSIDERATIONS

The literature on cultural differences is quite intricate, reflecting the complexity of world cultures (see Bond & Leung, 2009; Hofstede, 2001; House, Hanges, & Javidan, 2004; Inglehart, 1997; Inglehart & Welzel, 2005; K. Leung & Bond, 2004; Rokeach, 1973; Schwartz, 1999; Triandis, 1995, 2009; Trompenaars, 1993; Trompenaars & Hampden-Turner, 1998). In order to provide a coherent account, we have chosen to focus on one well-regarded model (Relational Models Theory), which we suggest is most relevant for understanding the mindsets associated with collectivism and how they might best be manipulated by cultural priming. To do so, we provide a novel exploration of the implications of this model for how interdependent self-construals might be structured in different collectivistic cultures. While we recommend the use of this framework for this research project, there would be a need to validate it during the development of the scenario-based measures and to contrast it against measures based on related models.

Chapter 3: Comparing Asian and U.S. Cultures

To be useful for analysts working on real-world problems, as opposed to ivory tower abstractions, the proposed theoretical framework needs to be able to make sense of real cultures. In this chapter, an effort is made to show that the proposed framework does potentially have explanatory power beyond that of the simple individualism-collectivism dichotomy when applied to the U.S. and to three Asian cultures chosen for their theoretical interest: Japanese, Chinese, and Afghani/Pakistani. It is also the goal of this exercise to provide concrete illustrations of how this theoretical framework relates to real cultures. Finally, the following ethnographic analyses provide a basis for generating the scenario-based measures proposed for the next stage of this project.

U.S. CULTURE

By this model, U.S. culture is hypothesized as being MACE [Market Pricing > Authority Ranking > Communal Sharing > Equality Matching]. In this view, U.S. individualism takes the form of emphasizing the qualities of the independent self over those of the interdependent self, in the sense that they tend to focus on the self in whatever relational model they are using. Regardless of whether an American is focusing on the independent self or the interdependent self (the social context), it is suggested that this is the priority ranking of the relational models.

By this analysis, Americans are most influenced by the Market Pricing relational model. Americans are strongly motivated to pursue activities leading to approval by their chosen peer groups. Furthermore, they choose peer groups by determining their personal strengths and advantages, therefore maximizing their reward to risk ratio. This focus on Market Pricing relational models results in intense competitiveness. What makes this dynamic individualistic rather than collectivistic is that Americans do not pursue a single homogeneous set of criteria for excellence (due to a focus on the criteria for approval by the shared social context) but rather support and encourage the pursuit of diverse interests (due to a focus on the self's unique characteristics).

Secondarily, this competition for success is channeled by formalized paths into careers, such as "doctor" or "senator," an expression of the Authority Ranking. It can be said that Authority Ranking is secondary to Market Pricing in that such authority roles tend to be contingent on current market pricing. In the political realm, elections provide a mechanism by which politicians must retain approval to stay in office. In the personal domain, there is an American tendency to treat the roles of husband and wife as contingent on mutual respect and affection (resulting in a high divorce rate compared to countries with more collectivistic outlooks). In the work domain, employee roles are again clearly delineated but contingent on levels of respect from colleagues and supervisors, resulting in a more dynamic job market than most other countries. While Authority Ranking is generally secondary to Market Pricing, there are exceptions, as in referees, who are expected to act strictly according to their role and without any apparent identity.

Subsidiary to these two relational models is a tendency to seek membership in like-minded teams, Communal Sharing. For example, in politics Americans have a tendency to aggregate into like-minded groups, currently Democrats and Republicans. The ongoing competition between the two groups are subservient to the Authority Ranking in that this partisan struggle occurs within a defined social space (e.g., politicians) and is therefore not allowed to threaten the overarching structure of government and, more generally, society (unlike some countries in the developing world). It is also secondary to the Market Pricing in that there is a strong norm that group membership should not outweigh the results of fair competition, as in the results of a vote. The American love of football is also an expression of this dynamic, in that it involves competition within formalized roles as members of teams.

A distant fourth in American society is Equality Matching. Thus, connections are recognized in limited forms (such as exchanges of Christmas gifts) but are not allowed to supersede activities regulated by the other representations, in which case it is stigmatized as corruption or nepotism. Connections, such as within a couple, are only accepted as having precedence when institutionalized in the formal roles of husband and wife, as in the right to refuse testimony in criminal trials, and even then only in limited situations. Fairness of competition, as mediated by Market Pricing and regulated by Authority Ranking, is paramount in most matters.

JAPANESE CULTURE

It is hypothesized that Japanese society is AMEC [Authority Ranking > Market Pricing > Equality Matching > Communal Sharing]. Paramount in Japanese society is the maintenance of the social order. The core value of the Japanese is *wa*, meaning harmony, peace, and balance (Brown & Brown, 2006, p. 42). Key to protecting this harmony is the ideal that everyone should have their place in the social order, namely their role; thus, "when people meet, they first try to determine the group to which the other belongs, such as their school or company, and their status within that group, rather than their personal traits" (Davies & Ikeno, 2002, p. 10). In the workplace, this sense of place revolves around their corporate affiliation: "when a Japanese 'faces the outside' (confronts another person) and affixes some position to himself

socially, he is inclined to give precedence to institution over kind of occupation. Rather than saying, 'I am a type-setter' or 'I am a filing clerk', he is likely to say, 'I am from B Publishing Group' or 'I belong to S Company'" (Nakane, 1970, p. 3). Aside from being consistent with a collectivist emphasis on social context over personal qualities, for the traditional salaryman for whom lifelong employment at a single corporation is the norm, it is the place of employment that stably defines their place in life.

The second strongest relational model seems to be Market Pricing. This aspect of Japanese culture can be seen most clearly in that "Every greeting, every contact must indicate the kind and degree of social distance between men. Every time a man says to another 'Eat' or 'Sit down' he uses different words if he is addressing someone familiarly or is speaking to an inferior or to a superior…The Japanese have, in other words, what is called a 'respect language,' as many other peoples do in the Pacific, and they accompany it with proper bows and kneelings" (Benedict, 1946/2005, p. 47). "Although a sense of egalitarianism seems to be growing today, people are still conscious of these hierarchies. In fact, even the seating arrangements and order of speeches at weddings and banquets are done strictly according to rank. In Japan, well-educated people are supposed to know their position; to abide by the tacit rules of society, which designate 'superiors first'; and to show their modesty in a natural way" (Davies & Ikeno, 2002, p. 144).

The combination of Authority Ranking and Market Pricing results in a very strong team mentality. For example, in the corporate world, salarymen emphasize positive respect to their colleagues and active hostility to outsiders (Nakane, 1970, p. 20), "stressing the group consciousness of 'us' against 'them'" (Nakane, 1970, p. 9). Furthermore, reflecting their greater focus on the interdependent self compared to Americans, "Individuals within the same group have a tendency to act in a similar way, partly because doing the same thing makes people feel relaxed, but it also helps in protecting themselves from being ostracized (*murahachibu*)" (Davies & Ikeno, 2002, p. 197).

Opposite to the American example, the fact that Authority Ranking is driving Market Pricing, , can be inferred in that employment at a corporation tends to be lifelong (Nakane, 1970, p. 15) rather than a matter of moving if one loses respect for it (or, vice versa, being fired). "Employees in an enterprise must remain in the group, whether they like it or not: not only do they not want to change to another company; even if they desire a change, they lack the means to accomplish it" (Nakane, 1970, p. 20).

In contrast to American culture, since Authority Ranking outweighs Market Pricing, the role tends to drive respect rather than vice versa, as in American culture. For example, "In the ideal traditional household in Japan, for example, opinions of the members of the household should always be held unanimously regardless of the issue, and this normally meant that all members accepted the opinion of the household head, without even discussing the issue. An expression of a contradictory opinion to that of the head was considered a sign of misbehavior, disturbing the harmony of the group order" (Nakane, 1970, p. 13). Thus, not only is obedience owed to the household head, but so is unconditional outward respect: "He learns that a person gives all deference to those who outrank him in assigned 'proper place,' no matter whether or not they are the really dominant persons in the group… The façade is not changed to suit the facts of dominance. It remains inviolable" (Benedict, 1946/2005, p. 56). While concern for respect is secondary, it is still a very powerful consideration and it reinforces the authority of the head of household: "The Japanese learn, too, in their family experience that the greatest weight that can be given to a decision comes from the family conviction that it maintains the family honor. The decision is not a decree enforced by an iron fist at the whim of a tyrant who happens to be head of the family" (Benedict, 1946/2005, p. 56).

These contrasts can also be seen in the classroom. For example, "Teachers often describe good students as *sunaona iiko*. This means that they are quiet, listen to what the teacher says, and ask no questions in class" (Davies & Ikeno, 2002, p. 147). In contrast, in America (where Market Pricing trumps Authority Ranking), students are rewarded for speaking up, which they do in part to bolster their reputation with the teacher and with their fellow students.

The third most important relational model appears to be Equality Matching. It can be seen in the prominent role of gift-giving in the Japanese culture. They have highly developed norms regarding the practice of exchanging gifts, which they do on many occasions, including returning from trips. "Gift giving is a social duty and obligation in Japan, based on the concept of *On*, which means debt of gratitude. *Okaeshi* (literally means return gift) tries to ensure your give and take will break even at some point" (Brown & Brown, 2006, p. 57). This relational model is very strong in Japanese culture, extending far beyond just gift exchanges to any favor made. While an American might just experience gratitude for a favor provided, in Japan it is experienced as a serious burden even when provided unasked: "The passivity of a street crowd in Japan when an accident occurs is not just lack of initiative. It is a recognition that any non-official interference would make the recipient wear an *on*" (Benedict, 1946/2005, p. 104). This burden of debt is treated much like a financial debt: "One should go to great lengths to pay the obligation and time does not lessen the debt. It increases rather than decreases with the years. It accumulates a kind of interest. An *on* to anyone is a serious matter. As their common saying has it: 'One never returns one ten-thousandth of an *on*.' It is a heavy burden and 'the power of the *on*' is regarded as always rightly overriding one's mere personal preferences" (Benedict, 1946/2005, p. 103).

The fact that Equality Matching operates more strongly in Japan than in America (where it is postulated to be the weakest of the four relational models), can be seen in how it is expressed in conjunction with Market Pricing. In contrast to American culture, where homeowners in recent years have felt increasingly free to walk away even from a serious financial

obligation like a mortgage and where the cultural values embodied in the legal system permit it, even unpaid non-financial debts have serious social implications. "*On* is in all its uses a load, an indebtedness, a burden, which one carries as best one may. A man receives *on* from a superior and the act of accepting an *on* from any man not definitely one's superior or at least one's equal gives on an uncomfortable sense of inferiority. When they say, 'I wear an *on* to him' they are saying, 'I carry a load of obligations to him,' and they call this creditor, this benefactor, their '*on* man'" (Benedict, 1946/2005, p. 99). Thus they are in part driven to repay such debts because until they do, they feel that their respect has been lessened.

It appears that the weakest relational model amongst the Japanese is that of Communal Sharing. As noted earlier, this relational model relies on the perception of similarity with other members of a group, especially a family. Despite its overall "collectivistic" nature, this aspect of Japanese society is weaker than even in the putatively "individualistic" American society. "Japan gives less weight to kinship than do other societies, even England and America; in fact, the function of kinship is comparatively weak outside the household. The saying 'the sibling is the beginning of the stranger' accurately reflects Japanese ideas on kinship. A married sibling who lives in another household is considered a kind of outsider" (Nakane, 1970, p. 6). Instead, the family group is defined by residence rather than blood ties: "Thus the wife and daughter-in-law who have come from outside have incomparably greater importance than one's own sisters and daughters, who have married and gone into other households" (Nakane, 1970, p. 5). Even non-kin members of the household are treated as being closer than blood relations: "Not only may outsiders with not the remotest kinship tie be invited to be heirs and successors but servants and clerks are usually incorporated as members of the household and treated as family members by the head of the household" (Nakane, 1970, p. 5). Thus, what the Japanese emphasize is functional groupings, essentially a team mentality at home as well as at work, rather than commonality of shared attributes (Nakane, 1970, p. 1).

CHINESE CULTURE

It is hypothesized that Chinese culture is characterized as being ACEM [Authority Ranking > Communal Sharing > Equality Matching > Market Pricing]. Authority Ranking primacy of Chinese culture can be seen in the manner in which the social order has traditionally been reinforced and justified by a unified cosmology in which the ruling system is understood as being an expression of a larger hierarchical and harmonious universal order (Wang, 2000). This hierarchical cosmology was further developed to include a central role for the family as a building block of society by Confucianism, the historical system of ethics that has both been an explication of Chinese values as well as a framework for Chinese education for 2500 years. A fundamental principle of Confucianism and of Chinese society in general, is that of filial piety, the obedience due a parent by the child. A model Chinese child is expected to be willing to sacrifice his or her life to save the parent, whereas in American culture it is more the reverse that is valued. Indeed, in ancient times, it was part of the legal code that if a child lodges "an accusation against their own parents or grandparents, they will be violating righteousness against the lineage, punishable by hanging, while the accused elder will be regarded as voluntarily surrendering oneself and be spared any punishment" (Dien, 2007, p. 5). More generally, Confucianism requires that one act according to *li*, the principles of ritual and proper etiquette that maintain social harmony.

For the Chinese, it is particularly important to maintain face or *lien,* which is to say the ability to maintain one's social role. "An individual's face, and hence his social adequacy, is maintained, relative to his social position, to the extent that he is able to satisfy the minimum requirements society has placed on him; his social adequacy is not maintained, or at least it is questioned, to the extent that he has lost face as a result of his inability to measure up to expectations in his social performance" (Ho, 1976, p. 872). "Examples of such cases are a captain found guilty of cowardly abandoning his ship and crew to save his own life, a priest caught in adultery, or a family disgraced by incestuous relationships" (Ho, 1976, pp. 872-3). Loss of *lien* renders a Chinese unable to function socially. It is distinct from *mienzi*, which also translates as face but has more the sense of positive reputation and is treated as being desirable but not necessary (Ho, 1976). The importance that the Chinese put on maintaining face is summarized in the saying "a person needs a face, a tree needs bark," thus expressing the attitude that one should not only preserve one's own face but also that of others (Brown & Brown, 2006, p. 41).

The secondary relational model appears to be Communal Sharing, which is seen in the premier role that is given to the extended family beyond the child-parent roles. In the Chinese view, and in contrast to the Japanese, family (as defined by kinship ties) is the basis for the social order. For example, "Since the legal system was to safeguard the orderly and harmonious relationships within the family, the Tang code, which became the blueprint for the legal code of later dynasties, stipulates that if someone in the family commits a crime, all the members of the family can conceal it from the officials and even help him/her evade legal sanction" (Dien, 2007, p. 5). Thus, in the Chinese view, the dominant Authority Ranking dynamic of filial piety to one's parents (and to a lesser extent to one's elder siblings) is leavened and extended with a Communal Sharing relationship with them as well as the rest of the family. Thus, one can observe the Chinese behaving either formally towards their parents (and perhaps bowing) when the Authority Ranking relational model is dominant or being relaxed and informal with them when the Communal Sharing relational model is dominant.

The strong role of Communal Sharing is also seen in the Confucian principle of *ren*, which is variously translated as goodness or humanness that arises from empathy and kindliness to one's fellow human (Gardner & Seeley, 2001). It is

expressed most directly in the directive to "treat others as one would have others treat you." This principle can be interpreted as extending Communal Sharing to all humans, perceiving the common qualities that all humans share, including them in the sense of the extended self and thus feeling their hurts. Historically, the Chinese have also expressed this relational model in the form of the concept of *yi*, meaning 'one.' The Han Chinese have long shared the perspective that the periodic fragmentation of the nation into warring states were temporary states of affairs that would eventually lead back to unification as one people (Brown & Brown, 2006, p. 40). The ongoing obsession of the People's Republic of China with Taiwan and Taiwan's seeming ambivalence about independence can be understood in this light, with each party largely assuming reunification to be inevitable but competing over the nature of the resulting sociopolitical model.

The combination of the strong role of Authority Ranking and Communal Sharing seems to contribute to the Chinese characteristics of adaptability and hard work. In essence, the Chinese represent goals in terms of considering the criteria for achieving a desired social role, such as becoming a doctor, and then working to meet those criteria. Since Authority Ranking drives Communal Sharing, having achieved a role they then emphasize their similarities to those in the same social role and seek to develop themselves appropriately. Since Market Pricing is a relatively weak relational model, the Chinese pay less attention to considerations of what social path would be easier to achieve, resulting in a tendency to be willing to work hard but also to not take advantage of opportunities and personal strengths in the American manner.

Of lesser, but still substantial, importance is Equality Matching, as seen in the principle of *guanxixui*. In the social sphere, it refers to dyadic relationships; family, friends, or social connections that are based implicitly (not explicitly) on mutual interest and benefit. "Once *guanxi* is established between two people, each can ask a favor of the other with the expectation that the debt incurred will be repaid sometime in the future" (M. M. Yang, 1994, p. 1). Whereas in American culture there is some suspicion of such relationships as potentially having corruptive (versus Authority Ranking) and unfair (versus Market Pricing) effects, in Chinese culture it is often seen in a positive light, as a coping strategy for dealing with sometimes overly rigid power structures (M. M. Yang, 1994, p. 15).

The greater role of Communal Sharing in China compared to the greater role of Market Pricing in Japan can be seen in the way that they affect the expression of Equality Matching in their respective cultures. In China, formation of ties via *guanxi* adds to one's extended self and is therefore a positive. In Japan, formation of ties via *on* results in weakness and loss of reputation and is therefore a negative. It should be understood that this difference is only relative, as the Japanese do enjoy gift exchanges and the Chinese do feel a burden if they become overly indebted to another.

Of least importance is Market Pricing, contrary to American culture where it seems to be the dominant relational model. The Chinese do indeed recognize this social force, terming it *mianzi* or face, but distinct from *lien,* as previously discussed. As one cultural informant put it, "We Chinese love face [*ai mianzi*] because face gives you social status, others will respect you and be willing to enter into social relationships with you" (M. M. Yang, 1994, p. 141). Nonetheless, it can be seen to have the least power in this culture because it is actively inhibited when it comes into conflict with the other social relation models. For example, in groups Chinese tend to act self-effacing and humble rather than assertive and boastful because of the need to avoid challenging authority figures (Authority Ranking) and hurting existing dyadic relationships (Equality Matching). In contrast, Americans thrive on public debate and the respect that successful oratory brings (Market Pricing), trumping the other relational concerns unless they are exceptionally strong.

An example of how compliance to authority by the Chinese is typically ruled by Authority Ranking rather than Market Pricing is the seemingly paradoxical observation that even as they obey, they can complain vociferously. Popular literature is filled with examples of children that show filial piety by suffering great hardship to serve their parents and yet complain resentfully, displaying obedience in the absence of respect. Conversely, since the Japanese put a greater emphasis on Market Pricing based respect processes, they tend to operate through peer-oriented consensus whereas the Chinese are more authority-oriented (Dien, 1999).

This disjunction between obedience (Authority Ranking) and respect (Market Pricing) has also historically led to extremes of stability in Chinese society. Because of their emphasis on Authority Ranking, the Chinese have traditionally been willing to accept levels of authoritarian rule that Americans would find unacceptable (keeping in mind that the Chinese cultural mindset does not necessitate adoption of authoritarian-style rule, as the Taiwanese have demonstrated). Since, unlike for the Japanese, for the Chinese respect is not constrained to follow authority, considerable resentment can build if government rule is perceived to be oppressive, just as it can towards parental figures. Since obedience is predicated on an acceptance of the authority structure, if the authority structure is then discredited by loss of ability to maintain the social good, whether through ineffectiveness or even due to natural disasters (what the Chinese call losing the "mandate of heaven"), rebellions and social disorder have erupted with great regularity, followed by restored harmony. Sometimes, as in the Cultural Revolution, mass movements are even encouraged by government leadership as a strategy for maintaining social legitimacy (Perry, 2001, p. xxiv). The People's Republic of China's awareness of this historical pattern has led their leadership to be extremely sensitive about promoting economic growth while simultaneously maintaining strict controls over the media. In this light, the currently developing Chinese housing bubble where entire cities are being built with no one to live in them is starting to look troublesome.

AFGHANI/PAKISTANI CULTURE

Both Afghanistan and Pakistan encompass a diverse set of ethnic and tribal groups so making global statements about their peoples risks overgeneralization. On the other hand, it has also been said that "ethnic group definitions are based on multiple criteria that are often locally idiosyncratic. Criteria considered critical in one region may be deemed irrelevant in another. Moreover, two groups in a local context may declare themselves distinct (and even hostile), but also accept as unproblematic a common ethnic label at the regional or national level" (Barfield, 2010, p. 18). We will therefore adopt the assumption that one can form some generalizations about the peoples living in this region on the basis of shared history, geography, and circumstance.

From this perspective, it is hypothesized that Afghani/Pakistani society has a social configuration of MCEA [Market Pricing > Communal Sharing > Equality Matching > Authority Ranking]. Thus, as in America, the strongest relational model is Market Pricing. The culture in this region can be understood, in part, as being a direct descendant of pastoral nomadic cultures that settled in this region in recent historically recent times. In the nomadic cultures of Central East Asia, the typical pattern of conquest was for warriors to gather around leaders, khans, who had developed a reputation as being effective war leaders, with whom one might likely obtain spoils of war. These khans in turn would gather around other khans with even stronger reputations. In this manner, success would breed success as military victories would enable a leader to recruit ever larger armies who in turn would attract even more warriors. Contrary to the pattern in Europe or in the settled Far East, these leaders usually had no institutionalized power and could maintain their leadership only as long as they could maintain their reputation. The social structures were therefore quite fluid and reputation a foremost concern (Barth, 1961; Burnham, 1979; Humphrey, 1979; Khazanov, 1978; Salzman, 1979). Outside of warfare, it was also important for pastoralists to maintain a reputation of strength because of its deterrence value against raids against their herds, a constant danger (Edgerton & Goldschmidt, 1971, pp. 16-17).

This primacy of reputation for driving social interactions continues to this day. "In Afghanistan, it is the Pashtuns who are the best example of this system through the Pashtunwali, a code of principles thoroughly rooted in the primacy of maintaining honor and reputation. The military advantage of this solidarity was particularly evident in times of conflict. When such groups entered into battle, they were renowned as fierce fighters because individuals would rather die than shame themselves in front of their kin by running away" (Barfield, 2010, p. 58). More generally, "In the absence of a money economy, people support themselves at a basic level. When surplus comes their way they invest in relationships. Hospitality, communal feasts, gift giving, and other forms of redistribution raise the status of the givers, and it is this social esteem or fame that is more cherished than money. Leaders gain and retain power through their ability to give to the group in some fashion. Bedouin poetry in particular praises the sheikh who is so lavish with his hospitality that he keeps nothing for himself. But such a subsistence economic base provides little basis for class differentiation, economic specialization, or capital accumulation" (Barfield, 2010, p. 58).

This nomadic heritage can also be seen in the workings of the Afghani national sport, *buzkashi* (Azoy, 2003`). In *buzkashi*, a large number of horsemen (sometimes in the thousands) vie for control of a single headless goat or calf lying on the ground. The horseman who can run away with it and establish clear control is the winner of the round and wins the prize. In the traditional form, *buzkashi* has no distinct teams or formal roles for the players, although some players are recognized as being especially outstanding (the *chapandaz*). Much as in historical times, there is a reputation-driven dynamic in which reputation (*nam*) allows an aspiring buzkashi tournament organizer (the *tooi-wala*) to successfully attract both players as well as potential hosts (*mehmandar*) to house the players. A successful tournament increases the reputation of the organizer, providing him with more influence with which to organize even larger tournaments in the future (Azoy, 2003, p. 24) or to organize other sorts of ventures, presumably including less festive occasions such as a common defense against an invading Russian army.

Unlike in America, the second strongest relational model appears to be Communal Sharing. "The outstanding social feature of life in Afghanistan is its local tribal or ethnic divisions. People's primary loyalty is, respectively, to their own kin, village, tribe, or ethnic group, generally glossed as *qawm*" (Barfield, 2010, p. 18).

The combination of Market Pricing and Communal Sharing resulted in a tribally based culture of honor:

"In such a system, the group interest trumps individual interest to such an extent that loyalty to the group supersedes everything else. Positive acts by any member of the group rebounded to the group's benefit; any shame likewise tarnished the reputation of the group as a whole. More significantly, attacks or slights against an individual were met with a collective response. One did not seek justice through government institutions (which often did not exist) but by mobilizing the kin group to seek retribution or compensation. If one man murdered another, the murdered man's kin were collectively obligated to seek blood revenge. Similarly the murderer's kin were collectively responsible for his act (and might even be targets in revenge killings), even though they had no direct role in it. If compensation were agreed on to end the threat of revenge, the whole group was liable for its payment. Not only did overt acts such as assault, murder, or theft

demand a collective response, so did threats to a group's honor and reputation" (Barfield, 2010, p. 58).

The third strongest relational model appears to be Equality Matching. While not as strong as in Japanese or Chinese culture, it does have an important role in social transactions. For example, people with connections, middlemen, help mediate between the tribesmen and the government. This function is not just a matter of knowing the organizational charts of the government but also of forging personal ties with specific individuals. "Entertaining officials in lavish style, organizing hunting parties, and paying social calls are vital elements in this process" (Barfield, 2010, p. 147). Unfortunately, while such a mechanism can help facilitate transactions, it also can lead to widespread corruption and undermining of law and order (Barfield, 2010, p. 154).

The weakest influence appears to be Authority Ranking in that there is very little in the way of formal roles. It has been said that "the Afghan form of authority resides neither in permanent corporations nor in formal statuses, but in individual men who relate to each other in transient patterns of cooperation and competition" (Azoy, 2003, p. 24). Furthermore, it has been said of such societies that "…because such groups had a strong cultural predisposition toward equality, it was difficult for a leader to consolidate power. In such a system every man and every group could at least imagine the possibility of becoming dominant, and resented being placed in a subordinate position…the position of leader itself was structurally weak. It lacked the right of command and so depended on the ability to persuade others to follow" (Barfield, 2010, p. 58).

Nonetheless, there is some place for formal roles, although it is subsidiary to respect-based (Market Pricing) processes. For example, a wealthy respected Arab can earn the title of *bai* by public accolade. Although a *bai* has no legal, institutionalized authority, he can serve as a mediator for disputes by virtue of the respect that he commands. For example, in one account (Barfield, 1981, p. 64) an Arab accused a Pashtun of stealing six sheep and appealed to an Arab *bai* for a hearing. This *bai* served as a host for the two disputants as well as inviting two respected neutral elders (a Tajik and a Pashtun) to attend. After the two sides gave their accounts it became clear to all that the Arab's case was weak. Although the Arab initially refused to accept that the dispute was over, the *bai* afterwards privately berated the Arab for bringing such a weak case, cementing the consensus verdict. Thus, the role of *bai* is institutionalized but lacks authority beyond that provided by the respect for his reputation and influence.

CONCLUSIONS

Foreign cultures can present a bewildering array of differing characteristics and assumptions. This present chapter has sought to demonstrate how a relatively simple theoretical framework can help an analyst organize his or her understanding of social dynamics in three Asian cultures and how they differ from that of the United State, keeping in mind that any such generalization applies to the central tendency of the populations, with exceptions abounding at both the individual level and at the subpopulation levels. In the absence of further information, these principles can help an analyst form expectations and interpretations that will be helpful more often than what might otherwise be possible. Furthermore, this framework can provide shorthand for orienting to an unfamiliar culture. Ultimately, this framework provides a solid basis for implementing cultural priming as a technique to help analysts learn different cultural mindsets.

As for examples of how this framework could aid an analyst, consider that it provides suggestions for both individual-level and national-level analysis. In particular, this approach can be most helpful when alternative relational models might apply or even conflict. For example, this framework suggests that, at the national level, seeking to influence the Chinese via the Market Pricing relational model might not be very effective compared to other approaches. Since the Market Pricing relational model seems to be particularly strong in American culture, it would seem natural for Americans to follow a Market Pricing approach, broadcasting our strengths and the incentives for following our lead. The described framework suggests that more effective approaches might be to appeal to the Authority Ranking relational model by framing the international world order in a manner in which both the U.S. and China have roles that, if conscientiously carried out, would maintain international harmony in a social structure that both countries would find to be of benefit.

The failure to do so successfully with Japan in the early Twentieth Century is commonly thought to have helped lead to World War II. The challenge, of course, is how to construct a formulation that would be acceptable to both parties. Secondarily, it suggests that making use of the Communal Sharing relational model, as in emphasizing our commonalities, including the existence of Chinese-Americans. It also suggests use of the Equality Matching relational model, as in emphasizing our willingness to trade favors, in the Chinese *guanxi* sense of being sensitive to their needs, contingent on their being equally responsive to our needs. Since Equality Matching is the weakest of the American relational models, this latter approach might take particular attention to implement. For example, it could involve highlighting points of American difficulties that would normally be downplayed in the interest of Market Pricing concerns with reputation but that could provide a basis for eliciting Chinese *ren* (empathy) and the desire to help us (even as we made clear issues where we could return the favor if a *guanxi* relationship was established).

Likewise, this framework provides some suggestions for policy in Afghanistan/Pakistan. It suggests that given the central role of Market Pricing reputation in their culture, it would be especially important to address this aspect. Giving public prominence to our foes, such as Bin Laden, might be counterproductive. Conversely, interfering with insurgent efforts to build reputation, such as by creating confusion as to who was responsible for a successful insurgent operation, could be helpful.

While a case has been made for this theoretical framework, there is a need to better refine and test it. As part of the proposed Deliverable 2a, if feasible, this team will seek to adapt the existing RMT measure, along with other relevant measures, to determine if it does indeed map onto Asian cultures of interest as proposed. In doing so, the team will also be developing scenario-based measures that can be used to directly evaluate the efficacy of cultural priming in a structured analytic task. In the next chapter, the literature on cultural priming will be reviewed and suggestions made on how it could be deployed in an analyst environment, within the RMT framework.

Chapter 4. Review of Psychology Experiments in Cultural Priming

Substantial empirical evidence points to robust and pervasive cross-national differences in critical psychological outcomes, including self-concept, values, affect, and cognition. These differences have been theoretically tied to a number of higher-order constructs (or syndromes) reflecting summary patterns of cultural knowledge (e.g. individualism, collectivism, see Chapter 2). Collectivism has been the predominant dimensional account of differences in self-construal between members of North American and East Asian cultures, with Americans depicted as less collectivistic (and more individualistic) than East Asians (Oyserman, et al., 2002).

In Chapters 2 and 3, we advanced a critique of the dimensional view, suggesting that the concept of collectivism is confounded by number of forms of belonging (Fiske, 2002). In developing our thesis, we introduced a version of Fiske's (1992) Relational Models Theory, designed to better account for existing data with East Asian societies (i.e. Chinese and Japanese) and to lay the foundation for capturing intuitions about South Asian cultures (i.e. Afghanistan and Pakistan). Here, we review the existing studies on cultural priming, in order to set the stage for testing the ideas we introduced earlier.

At the outset, we want to make clear that the existing studies do not provide a direct test of the ideas developed in Chapter 3. Cultural priming experiments take as their foundation the 'standard' dimensional account of individualism and collectivism (Oyserman & Lee, 2008a). The study populations are almost exclusively students in the U.S. and Hong Kong. In the discussion that follows the review, we address these limitations and outline our plan of introducing novel experiments designed to test alternative theoretical perspectives. Despite the limitations, the priming literature does make important contributions to the study of culture, both in terms of introducing a fruitful methodological approach and producing findings that support and extend cross-national results. We begin by laying out the intellectual foundations for studying cultural influence through priming, proceed to review analyst-relevant studies, and close by discussing open questions and options for deploying priming methods in the workplace.

CULTURE AS SITUATED COGNITION

One important limitation of cross-national research is the difficulty in drawing causal conclusions about culture from observed differences. Nations (and those who inhabit them) differ on a constellation of relevant factors. Besides culture, a country's geography, language and gross national product are just a small subset of variables that are usually confounded with cultural factors (Inglehart & Oyserman, 2004). Further complicating matters is the issue of within-culture differences, including variables such as literacy, urban vs. rural status, socio-economic status, age, gender and a multitude of resulting causally-relevant interactions (Kraus, Piff, & Keltner, 2009; Martella & Maass, 2000; Uskul, Kitayama, & Nisbett, 2008).

Despite these challenges, an important contribution of cross-national comparison has been to highlight potential cross-cultural variability. This variability has been explored in a number of cognitive and social psychology research programs that show robust cross-cultural differences in domains such as self-concepts, reasoning, decision making, attention, memory, and rudimentary information processing (Atran, Medin, & Ross, 2005; Choi, Nisbett, & Norenzayan, 1999; Nisbett, Peng, Choi, & Norenzayan, 2001). The failure to find cross-cultural replications of "basic" psychology findings has signaled a new and productive era in which researchers can no longer ignore cultural implications of their findings (Boduroglu, Shah, & Nisbett, 2009). In parallel, cross-cultural differences have enriched models of these basic processes (Aaker & Lee, 2001; Lopez, Atran, Coley, Medin, & Smith, 1997). However, as discussed in Chapters 2 and 3, cross-national studies tend to treat culture as a stable and often defining characteristic of a country's citizens. The downside of this approach is that it tends to *describe* cultural features rather than explain how cultural ideas cause behavior in specific situations. By contrast, the situational view assumes that schemas governing social interaction are widely shared across all humans (Baumeister & Leary, 1995; Burris & Rempel, 2004) and that culture determines the relative accessibility of a particular schema (Hong, 2009). Thus, a typical North American undergraduate student is capable of thinking of him or herself as an independent or an interdependent being, but the former is more likely overall because of the emphasis on independence in the culture (Gardner, et al., 1999). Furthermore, situational and task factors determine which self-categorization will be recruited in order to perform a particular task. Taken as a whole, the situational view can explain cross-national patterns of differences (e.g., East-West findings on self-construal) by appealing to chronic salience of particular cultural syndromes. In addition, it can also account for within-culture and cross-situational differences in behavior (e.g. Uskul, et al., 2008) by assuming context-appropriate schema activation.

In addition to serving as a richer model of culture, the situational approach affords more tightly-controlled laboratory studies (Oyserman & Lee, 2008b). Specifically, if culture exerts its influence through differential access to knowledge structures, then enhancing access to general cultural syndromes should cause behavioral consequences similar to those arising from cross-national studies (Gardner, et al., 1999). A related claim is that for bicultural individuals, enhancing access to specific cultural knowledge of one culture (e.g., artifacts, symbols) should shift behavior towards consistency with that culture by virtue of the connection between specific cultural knowledge and general syndromes (Hong, Morris, Chiu, &

Benet-Martinez, 2000). We call the former approach "priming cultural syndromes" and the latter "priming cultural symbols" and turn to these in the section titled Cultural Priming Studies.

PRIMING IN PSYCHOLOGY

What is priming? Priming refers to psychological conditions or stimuli that change an organism's readiness to make a response. Encountering a word, face or object may speed up processing, or enhance decision making about the same or related object in the near future. For example, reading a particular sign while driving along a highway is likely to speed up the processing of the same sign if it is observed again. In this case, it can be said that the first sign "primes" the processing of the subsequent sign. In a laboratory version of this scenario, participants are faster at identifying briefly flashed words if they are previously exposed to (i.e., "primed with") the same words in an earlier task (Jacoby & Dallas, 1981). Priming effects are ubiquitous in everyday life and can happen automatically, without one's awareness (Bargh, 1989; Neely, 1977; Posner & Snyder, 2004).

The theoretical basis for priming comes from the idea that at any given time, some concepts in the brain are more active or accessible than others. Because the brain stores a vast amount of information, only a very small subset can be used effectively at any given time. An idea or a concept is active if it is ready to be applied to the task at hand. What determines which concepts are active? First, the task or the situation can cause related concepts to be automatically activated (Brunner, 1957; Posner & Snyder, 2004). Second, knowledge that was previously active will carry over to the current task (see Figure 4.1.) (Neely, 1977). The extent to which recent knowledge influences current processing depends on whether recent knowledge is *related* to the current task (Srull, 2005; Wyer & Carlston, 1979). For example, playing guitar and playing the harp are related tasks and are likely to activate the same types of knowledge (e.g., playing stringed instruments, musical notation). At the same time, playing guitar and playing baseball are not highly related and are not likely to activate the same knowledge or skills. Consequently, knowledge activated by playing the guitar is more likely to carry over to playing the harp than to playing baseball. In general, tasks that are related in terms of their procedures, goals and requirements tend to draw on similar sets of cognitive resources and activate the same kinds of knowledge (Bargh, 1989; Srull & Wyer, 1978)**.**

Definition Box: Priming: psychological conditions or stimuli that change an organism's readiness to make a response.
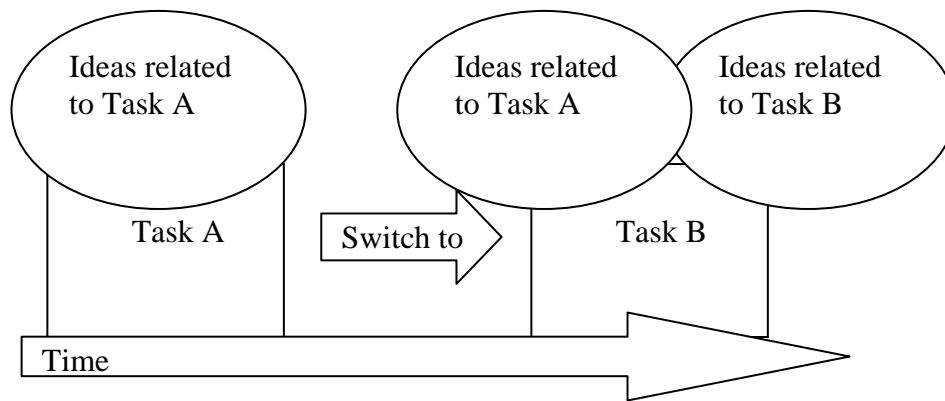

FIGURE 4.1. AN ILLUSTRATION OF THE CARRYOVER OF IDEAS BETWEEN TASKS.

Figure 4.1. illustrates how switching between tasks carries over activated knowledge. Task A activates ideas related to A. Switching to task B activates ideas related to B. In addition, ideas related to A are still playing some role in working on task B.

Priming theory. Theoretical support for priming comes from models of memory organization. Although details of memory theories vary (Gallistel, 1993), most are based on the assumption that memory is composed of interconnected nodes which represent concepts, words or actions (Anderson, 1983; Collins & Loftus, 1975; Neely, 1977; Posner & Snyder, 2004) . This Associative Network view assumes that activating a node triggers a cascade of activation that spreads throughout the network. The likelihood of a given node spreading activation to another is determined by the *strength* of the connection between them. For example, the concept "DOCTOR" is strongly connected to the concept "NURSE," but not very strongly to the concept "TEACHER." In fact, many experiments have found that responses to a target item "NURSE"

were facilitated (sped up) if the participant had to process the concept "DOCTOR" beforehand, but not if they had previously seen an unrelated item like "TEACHER" (e.g. Meyer & Schvaneveldt, 1971).

Is Priming the Same as Training? We want to caution the reader from interpreting priming as a form of training. Although both types of interventions entail a change in the activation or accessibility of concepts and procedures, there are important characteristics of priming that make it different from training (see Table 4.1.). In general, the goal of training is mastery of new skills, methods or approaches. The goal is specified in advance and the learner attempts to reach this goal by consciously implementing learning strategies to achieve the objective (Ogden, 1999). By contrast, priming plays a subtle, often unconscious role in temporarily changing mental accessibility of some ideas. To return to the highway sign example, seeing a repetition of the same sign will improve processing, but the driver may not be aware of the facilitation in processing or may not even remember seeing the same sign earlier. In short, priming can operate outside the scope of attention.

TABLE 4.1. *CONCEPTUAL DIFFERENCES BETWEEN TRAINING AND PRIMING PARADIGM*

	Training	Priming
Effect Duration	Long-term	Temporary, short tem
Time course of intervention	Long	Brief
Participant level of awareness	High awareness	Low awareness (even subliminal)
Starting point for knowledge	No prior knowledge required	Some/lots of prior knowledge*

*We turn to this in a later chapter

Another difference between priming and training is in the relative time course of the two processes. Training can take place across very long periods of time. For example, an often-cited figure for gaining world-class proficiency at a skill, such as playing a musical instrument, is 10,000 hours (Anderson, 1979). Many other learning goals can take a lifetime to achieve, yet few worthwhile tasks are learned in seconds or minutes. Although some very simple forms of statistically detectible priming (e.g., repeating the same stimulus) can last months, most priming effects fade within seconds or minutes (we turn to this issue later in this chapter).

Finally, training and priming differ in the amount and type of knowledge that is required for the intervention to be effective. Although all forms of learning build on some existing knowledge, priming requires that the primed knowledge be available (stored in the brain), while training can take place given relatively little experience with the target material. In general, training can help the acquisition of new knowledge or skills, but priming is designed to make existing knowledge or skills more accessible. To use a simile, training is like the long days of practicing a sport, while priming is the stretching exercise before the big game.

PRIMING EFFECTS: A TAXONOMY

We have described priming as a ubiquitous phenomenon because it can be seen in a variety of contexts and types of analyses. We have mentioned some real-world examples of priming: the repetition of a sign on a highway, as well as a particular skilled performance like playing guitar. In the laboratory, a priming procedure involves a **prime** task followed by a time **interval**, which is followed by a **target** task. Although the nature of the prime and target tasks can vary widely depending on the domain of study and the questions being asked, the general structure of prime-interval-target is a necessary aspect of a priming procedure. The critical variable in these experiments is almost always expressed as the difference between participants' performance on a target task in the priming condition relative to a control condition (i.e., no prime at all or unrelated material). A larger difference implies a larger priming effect and vice versa (Roediger III & Srinivas, 1993). Table 4.2. shows the taxonomy of priming effects demonstrated in the literature. It is organized starting with concrete perceptual and semantic priming phenomena and culminates with abstract mind-set priming examples. This section addresses each type in-turn.

TABLE 4.2. *TAXONOMY OF PRIMING EFFECTS IN PSYCHOLOGY*

Priming Type	Description	Duration/Strength
Repetition	Primes visual or auditory similarity	Very long term especially for unique stimuli (weeks and months durations reported). Resistant to intervening material
Semantic	Primes word association and/or meaning	Very short (~1 sec), although no data on maximum time. Degrades quickly with intervening material
Affective	Primes emotional evaluation of stimuli	Very short (~300ms). Degrades quickly with intervening material
Construal and mindset priming	Primes interpretive frames and goals	The shorter duration is better but has not been looked at systematically

Repetition priming. Repetition priming refers to priming instances in which the prime stimulus is the same or nearly the same as the test stimulus (the target is a repetition of the prime). The types of tasks used to demonstrate repetition priming can be broadly divided into those involving words or lexical stimuli and those using picture stimuli. In the original demonstration of repetition priming by Jacoby and Dallas (1981), the participant's task was to identify a word that was shown for only 35ms. At such short presentation times, identification becomes very difficult. In an earlier task, participants processed a list of words, some of which would later appear on the fast-presentation identification test. The results showed that words that appeared on an earlier task were identified more accurately than words that were new. Another demonstration of repetition priming comes from experiments on word stem completion (Graf, Squire, & Mandler, 1984) and word fragment completion (Roediger III, Stadler, Weldon, & Riegler, 1992). Similar results have been obtained using nonverbal picture stimuli. Srinivas (1993) developed a picture fragment task that was analogous to the word fragment task (see Figure 4.2.). In this task, participants had to identify a degraded object. In the 'unrelated' priming task, they were exposed to the whole object. This caused facilitation in identification speed for the objects that appeared in the priming task (see also Kroll & Potter, 1984).
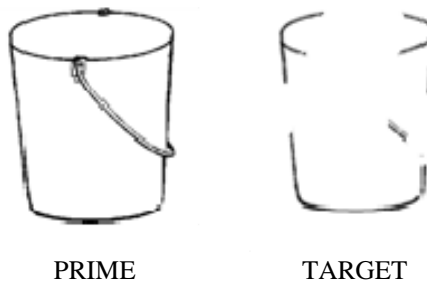

PRIME   TARGET

***FIGURE 4.2.* PRIME AND TARGET STIMULI IN A REPETITION PRIMING EXPERIMENT. PARTICIPANTS MUST IDENTIFY THE TARGET OBJECT AS QUICKLY AS POSSIBLE.**

Repetition priming has been shown to be extremely long-lasting. Some authors report that perceptual repetition priming manipulations can last for minutes (e.g., Dannenbring & Briand, 1982; Duchek & Neely, 1989; Forster & Davis, 1984) or hours (e.g., Scarborough, Cortese, & Scarborough, 1977). Some authors report that word stem completion effects can last up to one week (Schacter & Church, 1992; Tulving, Schacter, & Stark, 1982) while others found preserved priming effects over 6 weeks (Young, et al., 1988), 3 months (Bullock Drummey & Newcombe, 1995), 48 weeks (Cave, 1997), 16 months (Sloman, Hayman, Ohta, Law, & Tulving, 1988), and 22 months (Maylor, 1998). Recently, Mitchell (2006) described a statistically reliable picture fragment identification priming effect following an astounding 17-year delay. Even more remarkably, participants in the original 1980 experiment were exposed to picture stimuli for only 1 to 3 seconds. Such long-lasting memories do not surprise most theorists (Roediger III & Srinivas, 1993). For example, Jacoby, Allan, Collins, and Larwill (1988) suggest that even the most ordinary perceptual experience subtly but permanently alters mental representations. There is also growing evidence that perceptual processes are special in their longevity, and that other forms of priming are more short-lived (Roediger III & Geraci, 2005).

Semantic priming. Semantic priming refers to the facilitation of word recognition (e.g. BUTTER) by prior exposure to a related word (e.g. BREAD), but not to an unrelated word (e.g. DOOR). There is an important difference between semantic and repetition priming. In repetition priming, both prime and target share semantic information, but the priming that occurs is mostly due to the shared graphemic and phonetic properties of prime and target (Snow & Neely, 1987). Semantic priming is mostly due to the similarities in meaning between prime and target stimuli (Roediger & McDermott, 1993). Semantic priming studies typically rely on a sequential presentation procedure that collects prime and target tasks into a single trial. Figure 4.3. shows the typical sequence of events in a semantic priming experiment. The typical finding is that when the prime is related to the target word, response time for deciding whether the target letter string is a word is sped up relative to an unrelated prime word (Neely, 1991). Similar effects have also been obtained with auditory stimuli (Church & Schacter, 1993,1994).

A number of studies have manipulated delays between prime and target (Neely, 1977, 1989). The main finding is that as the delay increases, semantic priming becomes weaker. More specifically, it appears that significant priming facilitation disappears after about one second (Neely, 1977). No study has attempted to ascertain the maximum delay under which priming is significantly detected, primarily because at long intervals, it is difficult to determine whether priming is due to activation of related concepts or expectation of seeing a related stimulus (Posner & Snyder, 2004). Instead, researchers have typically looked at 'short' vs. 'long' delays to test for interactions between delay time and other study variables (Neely, 1991).

Research has also looked at prime duration as a factor (McNamara, 1992). At very short prime durations, prime words become subliminal primes (i.e., participants are unaware of prime content). Using a visual masking procedure, Draine and Greenwald (1998) showed a reliable subliminal priming effect at prime duration of 50ms but not at shorter prime presentation times. Many other studies have failed to find a reliable subliminal priming effect (as reviewed in Greenwald, 1992). This pattern of findings reinforces the elusive nature of subliminal priming in the psychology literature.

Several studies have examined whether inserting an unrelated word between prime and target diminishes the priming effect. Results are mixed but do point to the susceptibility of semantic priming effect to intervening material. For a single intervening item, some studies have found a significant priming effect (Davelaar & Coltheart, 1975; McNamara, 1992). Other studies have failed to find a reliable priming effect for prime-target pairs separated by one or more intervening items (Dannenbring & Briand, 1982; Sharkey & Sharkey, 1992).
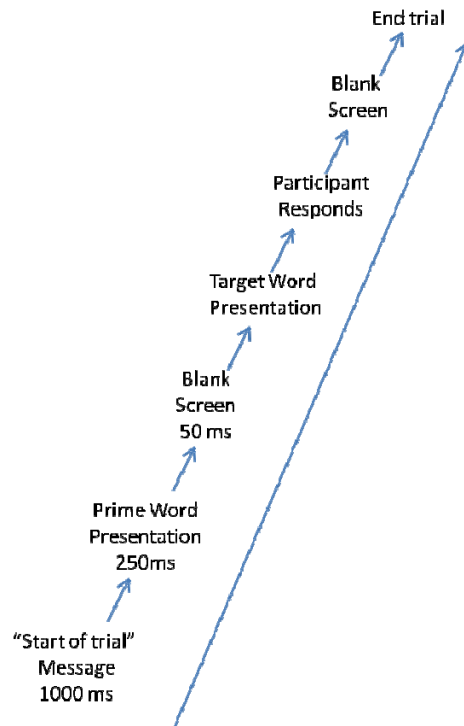

FIGURE 4.3. A DIAGRAM FOR A TRIAL SEQUENCE IN A SEMANTIC PRIMING EXPERIMENT (BARGH & CHARTRAND, 2000).

Affective (emotional) priming. Studies show that emotional evaluations associated with words also carry over to other tasks (Fazio, Sanbonmatsu, Powell, & Kardes, 1986). In a typical affective priming paradigm, participants are faster to respond to an emotionally charged word (e.g., LOVE) if it is preceded by a word that evokes a similar emotion (e.g.

SUNSHINE) than a word that cues a dissimilar emotion (e.g. DEATH). Affective priming effects have been extended to a variety of prime stimulus types, including color slides of objects, persons and animals (Hermans, De Houwer, & Eelen, 1994); simple line drawings (Giner-Sorolla, 1999); positive and negative odors (Hermans, Baeyens, & Eelen, 1998); and facial expressions (Murphy & Zajonc, 1993). The affective priming effect is stronger if the prime evaluation is highly accessible (prime is strongly negative or positive rather than weakly negative or positive, e.g., Giner-Sorolla, 1999).

Prime-target delay has also been examined (Fazio, et al., 1986; Klauer, 1997). The typical finding is that affective priming tends to have a very short duration (Greenwald, Draine, & Abrams, 1996). Priming effects are most robust for delays under 300ms, indicating a very short-lived activation of emotional evaluation. The literature is mixed on whether affective priming can be obtained in the subliminal domain. Studies using backward- masking paradigms did not show priming (Greenwald, Klinger, & Schuh, 1995, 1998; Klauer, Greenwald, & Draine, 1998). However, priming for exposure durations as short as 33ms was reliably demonstrated for a forward-masking paradigm (Draine & Greenwald, 1998; Greenwald, et al., 1996).

Construal priming. One important consequence of the associative memory model we discussed earlier is that activation of a node can cause a cascade of activation through the network of related nodes. Simply put, activating a specific node like CARROTS can activate a potentially large set of related nodes. It may seem obvious that related nodes like ONIONS, LUNCH, or RABBITS will also become active. In addition, more abstract and less directly-related nodes may also become more accessible. Thinking about CARROTS may get one to think about the current need to satisfy hunger, the abstract goal of eating healthy, as well as specific procedures such as the recipe for cooking them. In a nutshell, performing a relatively subtle priming task (e.g. unscrambling a set of words to form a sentence) can facilitate activation of relatively abstract sets of connected ideas, goals and procedures (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001). These constellations of related activities are called 'knowledge structures' (Schank & Abelson, 1977).

Priming can change the interpretation of a situation, a person, or an event (referred to as 'construal', see (Kelly; Mischel, 2007). In a classic demonstration of construal priming, (Higgins, Rholes, & Jones, 1977) had participants study a list of words for a later memory test (the prime task). Half the participants received words that were synonymous with being adventurous and half received words synonymous with being reclusive. In an unrelated follow-up experiment, all participants read about a stimulus person who sailed across the Atlantic by himself, an action that could either be consistent with a positive trait ('adventurous') or a negative trait ('reckless'). Participants who studied the positive trait words judged the stimulus person more positively than people who studied words related to the negative trait. No participant reported any influence of the memory study task on the person judgment task, supporting the idea that priming shifts interpretation automatically and unconsciously. In another classic study, Srull and Wyer (1979) introduced the often-used scrambled-sentence priming task and showed that unscrambling a sentence like "leg her broke he" caused participants to interpret an ambiguous future actor as more aggressive (see also DeCoster & Claypool, 2004 for a review of more than 40 studies looking at person impression formation priming).

Other studies have examined the priming of self-construal (Gardner, et al., 1999; S. Solomon, Greenberg, & Pyszczynski, 1991). In a study of particular relevance to this review, Gardner et al. (1999) asked participants to search for first person singular or plural pronouns ("I" vs. "we") in a paragraph and found that those primed with "I" were more likely to exhibit an independent self-construal than those primed with "we". The cultural priming studies we will be reviewing fall under this construal priming category and we return to this finding again shortly.

Empirical work on construal priming also goes beyond social evaluation. Here is a brief rundown. Priming solution-relevant words helps with insight problems (Higgins & Chaires, 1980). Priming photographs of environments (e.g. 'library') facilitates endorsement of relevant social norms ('silence') (Aarts & Dijksterhuis, 2003). Priming social power makes responsibility goals more salient (Lee-Chai & Bargh, 2001). Finally, Lerner, Small, & Loewenstein (2004) showed that emotional states carry over to unrelated decision-making tasks.

Mindset priming. Mindset priming has a direct effect on behavior, not just perception or evaluation (Azoy, 2003; Bargh, Chen, & Burrows, 1996; Chartrand & Bargh, 1996; Dijksterhuis & van Knippenberg, 1998). For example, Bargh et al. (1996) showed that priming trait words such as 'rude' or 'polite' caused participants to interrupt the experimenter more often if primed with the former than the latter. Participants were unaware of the influence of the priming task on subsequent interaction. Carver, Ganellen, Froming and Chambers (1983) showed an increase in hostile behavior towards a stimulus individual if primed with aggression-related terms. Other researchers demonstrated that priming exposure to members of a stereotyped group leads automatically and unconsciously to stereotype-consistent behavior (Dijksterhuis, Spears, & Lépinasse, 2001). See also Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel (2001); Moskowitz, Gollwitzer, Wasel, & Schaal (1999).

Beyond altering behavior, mindset priming has been demonstrated to have an impact on a variety of complex social and non-social tasks. For example, priming the concept 'elderly' increases response times on word/nonword decision tasks (Dijksterhuis & Bargh, 2001) and hurts performance on memory tasks (Dijksterhuis, Bargh, & Miedema, 2000). Priming "professor" increases performance on a test of general knowledge relative to priming "soccer hooligan"

(Dijksterhuis & van Knippenberg, 1998) and priming "punk" leads to more creative thinking than priming "engineer" (Förster, Friedman, Butterbach, & Sassenberg, 2005). See also (Bargh & Gollwitzer, 1994; Epley & Gilovich, 1999; Hassin, Bargh, & Zimerman, 2009; Macrae & Johnston, 1998; Sassenberg & Moskowitz, 2005)

Some researchers have investigated the factors contributing to the strength of construal and mindset priming effects. For example, Srull and Wyer (1979) varied the number of construal-relevant words in the scrambled sentence paradigm and found that the greater the number of construal-relevant words, the stronger the priming effect. Bargh and Chartrand (2000) reviewed the construal priming literature and concluded that conscious priming (like scrambled sentence task) is stronger than subliminal priming.

Higgins (1985) demonstrated a recency effect in priming. He used the scrambled sentence task to show that concepts that were primed later in that task had a greater impact on performance on the target task than earlier items. It is likely that spontaneous intervening thoughts and deliberative strategies are freer to operate in the longer interval and therefore dilute the influence of the prime. Although no construal study has systematically looked at prime-target interval, the evidence suggests that the priming manipulation is most effective if the target task immediately follows it.

Summary. As suggested by the above discussion and the summary in Table 4.1., psychological research has shown that priming is a ubiquitous concept. We have organized our discussion in terms of movement from relatively straight-forward repetition effects to priming of semantic relations, and ending with the discussion of priming relatively abstract concepts such as construal of self and others. Shortly, we expand on this last literature in order to isolate the previous work of relevance to priming cultural perspectives. However, before we turn to these studies in more detail, we want to cover two important questions of direct practical relevance to designing a priming intervention: whether it is necessary for prime and target to occur in the same sensory modality and whether it is important to ensure that the participants are unaware of having been primed.

CROSS-MODALITY PRIMING

In psychological research the term 'modality' denotes the sensory pathway being used to process information. Most commonly studied modalities are visual and auditory. Does the modality of the prime and the target need to match in order to obtain a priming effect? For perceptual priming tasks the priming effect is stronger if the modality of the prime matches the modality of the test (Church & Schacter, 1994; Jackson & Morton, 1984; Schacter & Church, 1992). Importantly, cross-modal priming reduces but does not eliminate the effect. This is not surprising given that a task that uses lexical items is likely to recruit both perceptual (orthographic or auditory) and conceptual (lexical semantic) resources. More generally, stimuli that match perceptual characteristics (e.g. both prime and target are presented visually) are more likely to prime each other (Pilotti, Bergman, Gallo, Sommers, & Roediger, 2000). Studies into more nuanced perceptual characteristics, such as the speaker's voice (male or female), show that even such subtle differences between prime and target surface features can decrease but not eliminate the priming effect (Goldinger, 1996; Sheffert, 1998).

So far, we have focused on perceptual priming such as word stem completion. As already mentioned conceptual priming relies less on immediate visual or auditory information and instead cues more on abstract meanings, goals and procedures (Sirat, Maruani, & Chevallier, 1989). There have been few studies directly addressing cross-modality priming on conceptual tasks. However, there is a growing body of indirect behavioral and neuroscience evidence about the importance of sensory systems in the representation of conceptual information (Glenberg & Kaschak, 2002; Pecher, Zeelenberg, & Barsalou, 2003; K. O. Solomon & Barsalou, 2001; Spivey, Tyler, Richardson, & Young, 2000). As a practical matter, given direct evidence about the importance of modality in perceptual priming and the indirect evidence about the importance of perceptual information in conceptual processing (e.g., Pecher, et al., 2003), it is best to keep prime and target within the same modality.

Does priming require that the subject is unaware of being primed? Bargh and Chartrand (2000) compared subliminal and supraliminal (conscious) priming studies and found that for construal and mindset manipulations, the expected effects hold regardless of the level of awareness of the prime. Furthermore, they concluded that conscious priming is stronger and longer-lasting than subliminal priming. The downside of conscious priming is its susceptibility to adjustment if the primes are extreme or memorable (see Herr, Sherman, & Fazio, 1983). An often-studied adjustment is the contrast effect (Strack & Hannover, 1996). A memorable prime that is extreme on some dimension is likely to make other objects less extreme by comparison and cause a negative priming effect. Furthermore, if a conscious prime is perceived as hurting performance on a subsequent task, then the participant will inhibit the prime effect and "adjust" for the effect of the prime. Finally, conscious primes presented repeatedly (as in a sequential priming paradigm) may cause the participant to ignore them, especially if they are the same or similar across trials. The bottom line is that

primes do not need to be subliminal if they do not hurt performance on the target task, are sufficiently novel each time they are presented, and are not sufficiently extreme or memorable to cause contrast effects.

CULTURAL PRIMING STUDIES

We have suggested that the social context of the situation (e.g., the nature of the interaction between individuals), invokes relevant knowledge and behaviors. Cultural knowledge is used indirectly in interpreting and categorizing the specific situation. The chosen category then helps cue appropriate behaviors. Under this situational cognition perspective, cultural differences arise from differences in chronic accessibility of some types of knowledge and in differences in situation construal. Cultural similarities develop from evolutionary forces supporting representation of a variety of mindsets, including functioning of individual minds separate from others (Burris & Rempel, 2004) or in groups (Baumeister & Leary, 1995). In other words, members of all cultural groups have the same capacities with respect to representation of situations. Evolution enabled all humans with the ability to recognize individuality and collective orientation. To use a "lens" metaphor, every human has roughly the same set of lenses at his or her disposal, but culture determines which one to use in any given situation[1].

A key additional advantage of the situational view is that it allows researchers to study some aspects of culture by doing controlled experiments rather than performing cross-group comparisons. If differences between cultures are indirectly caused by differences in knowledge structures that are activated in a particular context, then experimentally manipulating accessibility of knowledge structures should approximate the effects of 'culture'. This allows researchers to 'simulate' culture in the laboratory. To illustrate, suppose that the norm for culture A is to interpret a situation as being about interdependence and the norm for culture B is to interpret it as being about independence. Can a member of culture B be compelled to see the situation as does a member of culture A? The answer according to the situational approach is "yes." If a method exists to make the independence-related aspects of the situation salient to the person from culture B, then this person will inevitably behave like someone from culture A.

The method that has been used in the social psychology literature is priming. As we have seen from the taxonomy, primed information can be used to temporarily increase the salience of related concepts in memory. Recently-activated knowledge can spill over to follow-up tasks (Bargh, 1994, 2006; Srull & Wyer, 1978) The review of construal and mindset priming suggests that even relatively distant concepts-behavior linkages can be primed (e.g. priming aggressive words and observing aggressive behavior 1996; Higgins & Bargh, 1987).

Overview of existing research. Experiments using the culture priming techniques can be divided into two types: those that prime general cultural *syndromes* (typically individualism and collectivism) and those that prime cultural *symbols*. The first paradigm has received the bulk of attention in the literature. The culture syndrome priming paradigm typically involve studying a single group (e.g. U.S. undergraduates) and testing the extent to which priming cultural syndromes of individualism or collectivism changes behavior on test of social or cognitive performance (Gardner, et al., 1999; Oyserman & Lee, 2008b). Such experiments have been used to test a variety of interesting hypotheses about the effects of rendering cultural syndromes differentially salient, including whether priming affects endorsement of values, changes perceived closeness with others, changes well-being and happiness, and a variety of cognitive outcomes. To preview, the literature consistently shows that priming independence leads people to behave in ways consistent with an individualistic mindset, while priming interdependence leads people to behave in ways consistent with collectivism (Oyserman & Lee, 2008a). These results have been interpreted as support for the situational view of culture because they purport to emulate cross-national differences in chronic levels of syndrome accessibility.

The second type of paradigm, cultural symbol priming, looks at individuals who are members of two different cultures. An ideal participant in such a study has sufficient experience in both cultures to function fluently in either environment (Benet-Martínez, Leu, Lee, & Morris, 2002; Hong, et al., 2000). Bicultural participants are typically bilingual (Marian & Kaushanskaya, 2004) and have the subjective experience of switching between cultural modes depending on the situation (Bond & Yang, 1982). An often-studied population of bicultural people is Hong Kong Chinese, a group that has been substantially influenced by both the Chinese mainland and British culture. Priming studies with bicultural individuals examine differences in social and cognitive behavior as a function of the cultural self that is made temporarily salient in a given person. In a typical priming manipulation, bicultural Chinese American participants are presented with either a Chinese Dragon or an American Flag icon (Hong, Chiu, & Kung, 1997, 2000). Afterwards, participants are asked to perform a social judgment task that is well known to exhibit Chinese-Western cross-national differences (we discuss these

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[1] The situational view may appear to downplay the role of culture-specific knowledge (the years of being raised and acculturated in an environment). In fact, this view does not exclude the role of culture-specific knowledge, or prolonged learning experience in a culture, treating those as factors that reinforce a cultural orientation.

in detail later in this chapter). Findings typically indicate that priming one side of a person's bicultural identity tends to cause him or her to behave in a manner that is congruent with that culture's norms (Hong, 2009).

Similar to the syndrome priming studies, studies of symbol priming with bicultural individuals provide support for the situational view of culture. First, bicultural participants can be influenced to switch between identities using relatively subtle priming manipulations, supporting the idea that situational cues automatically activate cultural procedures and norms that guide behavior in context (Bargh & Chartrand, 2000; Brewer & Gardner, 1996; Chartrand & Bargh, 1996; Srull & Wyer, 1979; Trafimow, Triandis, & Goto, 1991). Second, echoing the general conclusions from the syndrome priming studies, studies of bicultural individuals show that cultural effects arise not only out of differences between members of varying ethnic or national groups, but can manifest themselves across situations within individual minds.

From a practical point of view, it is useful to think of syndrome and symbol priming approaches as looking at two sides of continuum of cultural knowledge. On the one hand, individuals with very low knowledge of another culture will nonetheless be susceptible to priming of abstract syndromes. As we have argued, members of all groups possess the basic modes of thought, such as being able to see separation and connection. These are opposite but necessary mental frameworks (Oyserman & Lee, 2008b). On the other side of the continuum are individuals with richer cultural knowledge, including knowledge of language, customs, norms, artifacts and symbols. These individuals will also be effectively primed by cultural syndromes, but will also be susceptible to priming using more specific cultural knowledge.

Before moving on to specific studies, it is important to mention two limitations to the cultural priming research. First, the existing studies focus almost exclusively on individualism and collectivism (Oyserman & Lee, 2008a). Other relevant syndromes such as honor (Nisbett & Cohen, 1996), power distance (Hofstede, 1980), or the sorts of categorical frameworks proposed by (Fiske, 1992) have not been studied using this paradigm. Part of the reason is that the dimensional view is the dominant theory in cultural psychology (Oyserman, 2002 #820, but see Hofstede, 2001; Schwartz, 1992). A goal of this project is to fill this critical gap in the basic literature on cultural priming. A second limitation concerns the interpretation of a null result in a priming paradigm (Atran, et al., 2005). If no effect of prime is found, then either the target task does not rely on the relevant syndrome or the priming manipulation was not sufficiently strong to produce an effect. As a consequence, researchers may have gravitated towards the tried-and-true individualism-collectivism dimension because it has been used in many previous studies and is well known to be sensitive to even relatively weak priming manipulations. An important goal of this project is to do the methodological legwork required to determine what other aspects of cultural knowledge can be primed and to establish replicable protocols for application to analysis as well as basic research.

HOW CAN PRIMING STUDIES HELP ANALYSTS?

An important goal of intelligence analysis is the understanding of the reasons behind an adversary's behavior. Such understanding can lead to successful prediction of the adversary's future behavior and thus increase the likelihood of mission success. Understanding often depends on the analyst's ability to take the perspective of the adversary (Heuer & Pherson, 2010). Adopting the perspective of the adversary allows the analyst to "step into the adversary's shoes" and assess the situation from his or her world-view. Although culture is only one of many factors that play in a person's behavior, understanding the role of culture can substantially improve analytical effectiveness. We will review evidence that points to the capability of cultural priming to increase the sensitivity of the analyst to the norms, values and procedures of the adversary culture.

Three general points need to be made here. First, this heightened cultural sensitivity should happen automatically and without the need for effortful processing of priming material. Second, cultural priming interventions take advantage of existing language and culture training and do not replace this training. Finally, the characteristics of the priming will be determined in part by the specific analytical skill or task that utilizes cultural knowledge. In Table 4.3., we present a mapping between critical analytical skills and the relevant experimental paradigms in which priming particular cultural orientation has had an effect. In order to keep this review analyst-focused, we use this table as an organizational device for the rest of the section.

TABLE 4.3. *CULTURAL FACTORS IN ANALYSIS: HOW BASIC RESEARCH ON PRIMING PLAYS A ROLE*

Analysis Task	Analysis Question	Relevant Laboratory Paradigm	Key findings
Adopting an adversary perspective: Values	How will the adversary's values influence his or her behavior?	Endorsement of values	Participants primed with collectivism endorse values more consistent with collectivism (Briley & Wyer, 2002)
Causal Explanation	What is the best explanation for an adversary's actions?	Internal vs. external attribution task	Bicultural participants primed with Asian cultural symbols are more likely to attribute an ambiguous behavior to external rather than to internal factors (Hong, et al., 1997; Hong, et al., 2000; Oishi & Kisling, 2009)
Adopting an adversary perspective: Obligation and Cooperation	How will the adversary's social obligations influence his or her behavior?	Perceived obligation towards others / Cooperation in a Prisoner's Dilemma Game	Participants primed with collectivism experience greater social obligation than those primed with independent self-construal (Gardner, et al., 1999, 2004) Bicultural participants primed with Asian cultural symbols are more likely to co-operate in a Prisoner's Dilemma game (Wong & Hong, 2005)
Adopting an adversary perspective: Tracking Common Ground in Conversation	What is the context of a conversation?	Sensitivity to conversational norms	Priming collectivism increases sensitivity to conversational norms (Haberstroh, Oyserman, Schwarz, Kühnen, & Ji, 2002)

Adopting an Adversary Perspective: Values

Cultural groups differ in the extent to which they value institutions, artifacts, and ideas (Schwartz, 1992; Triandis, 1990). For example, residents of the United States readily endorse freedom, independence, excitement and variety of experience as important cultural values. At the same time, friendship, family, national security and respect for elders tend to be endorsed by people in the People's Republic of China (Triandis, 1990). Research shows that values can play an important role in human decision-making because unlike other types of goals, values tend to resist compromise or tradeoffs against other quantities (Baron & Spranca, 1997). For example, most people in the United States see the value of freedom as an absolute and any attempt to restrict freedom, even in the service of an important goal of public safety, will be viewed negatively. Oftentimes, even the thought of compromising a value believed to be sacred can be culturally looked down upon (Tetlock, 2003).

For outsiders looking at another culture, it is often difficult to accurately gauge the extent to which values, especially sacred ones, are influencing decisions made by groups. For example, Dehghani et al. (2009) showed that Western negotiators underestimated the extent to which Iran's nuclear program constitutes a sacred value for the country's people. In doing so, negotiators have focused on monetary rewards for cessation of nuclear activities, failing to note that such an attempt to trade a value off against a monetary gain is likely to backfire in public opinion and further bolster support for continued nuclear development.

A number of priming studies have looked at ways to capture cross-national differences in monocultural and bicultural populations. The logic of the experiments follows that outlined earlier. If, as predicted by the situational view, individuals in a given culture possess knowledge structures to support both independent and interdependent mindsets, then priming one or the other should strengthen the activation of value sets consistent with that mind set. Thus, if primed with an independent mindset, participants in a given population should endorse the value "freedom," but if primed with an interdependent mindset, they should endorse the value "friendship."

Researchers have typically primed cultural syndromes of individualism and collectivism by employing priming materials that increase the salience of independent or interdependent self-construal. Priming effects are then observed on a particular dependent variable designed to measure value endorsement. Dependent variables have included established cross-national value scales (Briley & Wyer, 2001, 2004; Gardner, et al., 1999); endorsement of culture-specific values (e.g., Chinese value "The ways in which schools discipline students nowadays are overly lenient"; see (K. S. Yang & Bond, 1980) or endorsement of proverbs (Briley & Wyer, 2002). Several studies also examined effects of primes on judgments about specific scenarios, such as acceptance of euthanasia or affirmative action (Kemmelmeier, Wieczorkowska, Erb, & Burstein, 2002, 2003).

In what has now become a classic demonstration, Gardner et al. (1999) presented American undergraduates with a word search task which consisted of a story paragraph containing mostly first person singular pronouns ("I") or first person plural pronouns ("we"). The word search task requires the participant to focus on the pronoun type and, presumably, increases the strength of activation of ideas related to independence or interdependence. Indeed a check on the manipulation showed that the prime was sufficient to change self-construal in the predicted direction. The critical target task was a survey consisting of endorsement scales for 56 values (Schwartz, 1992). The values were classified as collectivistic or individualistic based on differential endorsement by American and Chinese participants in an earlier study (Triandis, 1990). Results indicated that people in the interdependent prime ("we") condition were more likely to endorse collectivistic values than those in the independent ("I") prime condition (see also Briley & Wyer, 2001 Study 4; Gardner, et al., 2004; Kemmelmeier, 2003 for other studies using this priming method).

A number of alternative priming methods have also been successfully explored in the literature. In a different experiment, (Gardner, et al., 1999) had participants read a story about choosing a warrior on the basis of individual qualities or on the basis of family history. Results indicated that the individualistic story increased endorsement of individualistic values relative to the family-related story (see also Mandel, 2003). Another study used a more indirect priming method by giving participants an expectation that they would be working alone or in a group (Briley & Wyer, 2002 Study 1). Participants then evaluated a number of proverbs, some of which emphasized interpersonal equality and collective effort. Results showed that participants who were expecting to work in a group were more likely to endorse proverbs from the equality-related set.

Increasing the salience of icons from one's own culture also appears to facilitate the endorsement of cultural values. For example, (Briley & Wyer, 2001) used a cultural symbol manipulation with U.S. students. Some students processed information about American cultural icons (e.g., American flag) while others processed information about icons from another culture (e.g., Chinese dragon). Boosting the salience of one's own culture increased endorsement of typically-American values as measured on the Triandis (1995) scale.

Language itself has been used as a prime in several studies, although the results are mixed (Oyserman & Lee, 2008b). In such studies, bilingual individuals with substantial experience in two cultures are asked to perform tasks entirely in one or another language. Assuming that language serves as a cue for retrieval of cultural knowledge, then performing a task in a language should increase the accessibility of concepts related to that culture (Bond & Yang, 1982; Marian & Kaushanskaya, 2004; K. S. Yang & Bond, 1980). In one study, Hong Kong Chinese bilingual participants were more likely to endorse Western values if completing a survey written in English than one written in Chinese (Bond & Yang, 1982), although the pattern of data was not consistent. More recent investigations have shown that bilingual-Chinese participants respond in a more Western way to a values measure presented in English than one presented in Chinese (but see Kemmelmeier & Cheng, 2004; Ralston, Cunniff, & Gustafson, 1995; M. Ross, Xun, & Wilson, 2002).

Taken together, existing studies show that endorsement of cultural values can assimilate or move towards the primed cultural norm. Despite the consistent findings across a variety of prime and target task characteristics, much remains to be learned. Although examples of cultural differences in decision-making are well documented (Weber & Hsee, 2000), the relationship between cultural values and choice has not been adequately addressed. For example, (Briley & Wyer, 2001) found no statistical relationship between responses on the Triandis (1995) values scale and subsequent choices on a decision task, even though this task exhibited reliable cross-national differences between U.S. and Chinese participants. As we have suggested earlier, if the individualism/collectivism construct cannot predict behavior beyond scale responses, its utility as a model of culture is at best, limited. Clearly, more research is needed to understand the relationship between culture, values, and choices.

Adopting an Adversary Perspective: Obligation and Cooperation

The priming research literature tends to view social obligation and cooperation as part of a set of constructs that make up a relational orientation, including prosocial behavior, perceived social support from others, as well as automatic behaviors such as how closely one sits next to others (Oyserman & Lee, 2008b). We focus on obligation and cooperation because we believe these constructs have a particular relevance to the analyst—both are likely to have direct impact on an adversary's behavior. For example, an insurgent may feel an obligation to avenge the death of a relative and this goal can cause him to take actions that may be difficult to understand out of the cultural context. Thus, a sense of obligation, if sufficiently strong, can serve as a powerful motive for action. Likewise, a cultural pressure to cooperate (or to defect) in a conflict situation can have a powerful effect on behavior and consequently, on an analyst's understanding of the adversary.

Several priming studies have looked at obligation and cooperation as dependent variables. Gardner et al. (1999) used a social judgment task in which someone fails to help someone else in need for a fairly trivial reason. A more elaborate version of this task was introduced in another study and was used to show that members of a collectivistic culture were more likely to assign obligation across a variety of contexts than Americans (J. Miller, Bersoff, & Harwood, 1990, see also Oyserman et al. 2002 for a review). Gardner and colleagues used the pronoun circling task and the story-based priming task to increase the activation of either independent or interdependent self-construal. Results indicated that participants in the interdependent prime condition were more likely to blame the hypothetical person who failed to meet an obligation than participants who received an independent manipulation. In short, an interdependent self-construal increased sensitivity to social obligations in a hypothetical actor (see also Gardner, et al., 2004).

One approach to measuring cooperation in the laboratory is by analyzing performance on resource conflict games like the Prisoner's Dilemma (Dresher, 1981). This game is typically played with two people, each attempting to maximize his or her total point score. The rules are set up such that defection or betrayal always results in a higher point total than cooperation. However if both defect, the total point score for both players is lower than if both cooperate. A stable equilibrium in which both players trust each other and maintain cooperation is the best long-term strategy, although the game always presents a tension between individual short-term gain and long-term mutual benefit.

Oyserman et al. (2002) reviewed cross-national differences in cooperation styles in conflict resolution scenarios and found that the majority supported the idea that Americans adapt a relatively self-oriented conflict resolution style. For example, studies by Parks and Vu (1994) indicate that recent Vietnamese immigrants are more likely to cooperate in the Prisoner's Dilemma game. Wong and Hong (2005) tested the hypothesis that priming Chinese cultural identity in Chinese American biculturals would cause a greater level of cooperation in the game. The authors followed a culture symbol priming paradigm developed by Hong (2000) and primed participants with Chinese, American, or Neutral primes (see Figure 4.1.). The hypothesis was generally supported, with Chinese primes eliciting greater levels of cooperation (see also Utz, 2004 for the same findings). Interestingly, the effect of priming held only for pairs of individuals who were friends; pairs of strangers were unaffected by the prime. Although a full explanation of this finding is necessary, several cross-national studies point to greater reliance on equality-based interaction norms for in-group members in East Asian societies (K Leung & Bond, 1984, 1992).
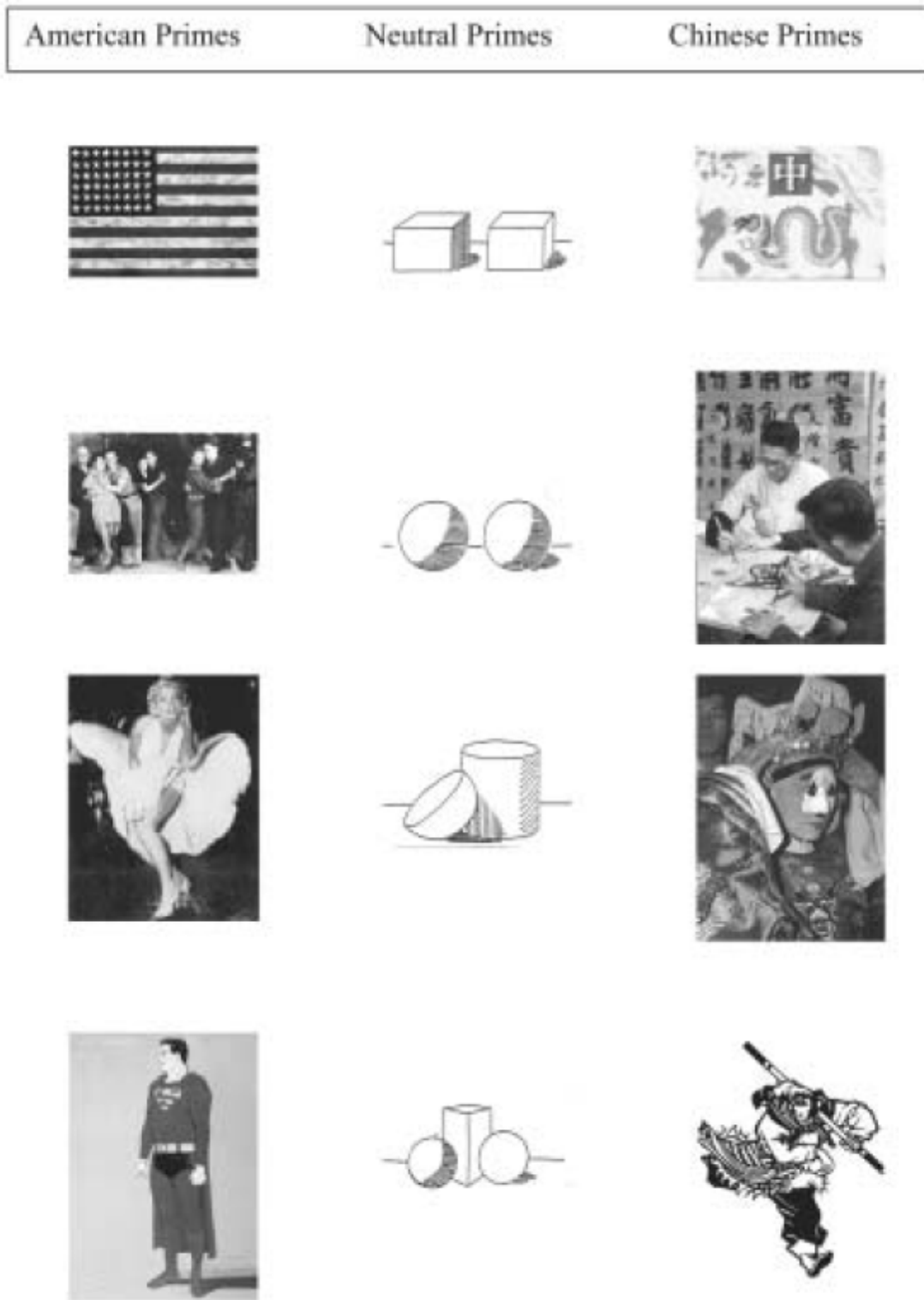
American Primes	Neutral Primes	Chinese Primes

FIGURE 4.4. EXAMPLES OF AMERICAN, NEUTRAL AND CHINESE PRIMES USED IN EXPERIMENTS BY HONG ET AL (HONG, ET AL., 2000, 2003).

Adopted from Hong et al. (2003). JOURNAL OF CROSS-CULTURAL PSYCHOLOGY, Vol. 34 No. 4, July 2003 pp. 453-464.

In summary, existing laboratory research shows that priming can shift social processing to increase or decrease sensitivity to social interaction norms, depending on prime content. Priming a collectivistic self-concept tends to increase sensitivity to social obligations and to facilitate cooperation in a conflict resolution scenario. These priming findings mirror those in the cross-national literature. It is possible that priming in an analysis context can heighten the analyst's awareness of an adversary's social obligation. For example, an authoritarian leader may be observed to have chosen to help a neighboring country facing a relatively minor problem, but at a great political loss. Such action might seem irrational to an observer with a Western mindset, although it may make sense if an obligation to help is interpreted as a moral prescription rather than an outcome of a cost-benefit analysis. Helping the analyst take the appropriate cultural perspective can facilitate more accurate inferences and predictions.

Improving the Accuracy of Causal Explanation

Understanding adversary behavior means generating an accurate explanation for it. Questions of causal explanation lie at the heart of mission-critical analyses and the difficulty of such judgments are familiar to any analyst. How accurate are we at assigning the right explanation for another person's behavior? A long line of research on this topic shows that our explanations are biased towards attributing behavior to personality and other internal forces of the actor (L. Ross & Nisbett, 1991). This bias often results in a processing error sometimes called the Fundamental Attribution Error, or the tendency to assign explanation for behavior to individuals rather than the situation (L. Ross, 1977). For example, observing a leader of a foreign nation brazenly denounce and threaten neighbor states may be attributed to him being an aggressive and irrational individual. Alternatively, internal political pressures may have caused the leader to make public statements designed to appease his critics. Research shows that people have a bias to make the first inference and ignore the second one (Gilbert & Malone, 1995). Inferences that are based on internal characteristic of the actor are called "dispositional inferences" while those that are based on temporary situational factors are called "situational". The dispositional bias leads people to not only over-attribute observed behavior to internal personality factors but also to overestimate the consistency of behavior for a particular individual across situations (Kunda & Nisbett, 1986). Finally, the bias leads people to be overly confident in making predictions about the behaviors of others (Dunning, Griffin, Milojkovic, & Ross, 1990).

It is important to keep in mind that these findings were based on studies of U.S. student populations. An important recent development in the study of attribution is that explanation styles differ across cultures (Choi, et al., 1999). Specifically, several studies show that in East-Asian and Indian cultures, the dispositional bias is much weaker or nonexistent (e.g., Menon, Morris, Chiu, & Hong, 2005; J Miller, 1984; Morris & Peng, 1994). Oyserman and Lee (2002) reviewed 29 studies comparing national populations on style of causal explanation for observed behavior. The authors found a "moderate to large" (p.35) effect of national culture on attribution style. Differences in attribution between Western and non-Western cultural groups have been documented for a variety of paradigms and stimulus materials (Al-Zahrani & Kaplowitz, 1993; J Miller, 1984, 1986; Morris & Peng, 1994). Importantly, these differences persist even when situational information is made salient and is in conflict with dispositional factors (Morris & Peng, 1994). The bottom line is that European-Americans tend to be less accurate than Asians in producing social explanations because they tend to disregard situational factors that play a role in behavior.

How can the attribution error be reduced, especially in European-American observers? Given robust differences in attribution style across countries associated with individualism and collectivism, it is natural to predict that priming self-construal should produce effects that mirror cultural differences. Hong et al. (2000) studied social attribution with Hong Kong Chinese bicultural participants. The authors developed and implemented a cultural symbol priming procedure discussed earlier. Participants received American, Chinese or Neutral primes (see Figure 4.4.) after which they completed a social attribution task. The task was developed by Morris and Peng's (1994) and showed an animated display of an ambiguous interaction. Figure 4.5. illustrates the display.
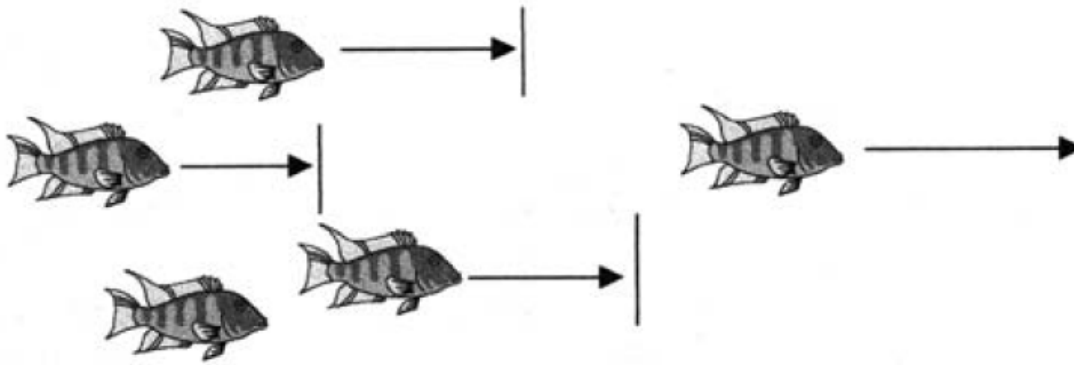
FIGURE 4.5. ILLUSTRATION ADAPTED FROM FISH SWIMMING ANIMATION USED IN THE HONG ET AL. (2000).

The animation shows the fish to the right of the screen moving in a trajectory that is consistent with either an internal or an external (situational) disposition. In one such animation, the fish to the right is initially swimming with the group but then moves away from it. It is ambiguous whether the target fish is "leading" the group or is "escaping" other fish chasing it. The reason to use nonhuman anthropomorphic stimuli here is to minimize the likelihood that participants might suspect that the task is "about" culture and alter their behavior (the same stimuli were used to show robust East-West differences in an earlier study). The results of four experiments show that Chinese bicultural participants were more likely to assign a situational attribution to the target fish ("escaping") if primed with Chinese primes than American or Neutral primes. The findings were also replicated with Chinese-Americans living in the U.S. (Hong, et al., 2000, 2003).

What is the reason for the cultural differences in explanation style? It has been suggested that Asians have a reduced dispositional bias because of the group's general tendency to pay more attention to the contextual factors in a situation (Nisbett & Miyamoto, 2005). This difference in information processing style has been demonstrated using very basic perceptual stimuli (Ji, Peng, & Nisbett, 2000, Masuda & Nisbett, 2006). Employing a priming paradigm, Kuhnen and Oyserman (2002) showed that participants primed with interdependent self-construals responded faster than those primed with independent self-concepts to a local than a global feature of a Navon figure (See Figure 4.6.) (see also Lin & Han, 2009). In short, it is likely that basic differences in information processing between cultural groups extend to social judgments.
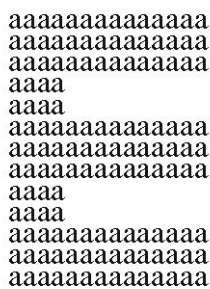
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FIGURE 4.6. AN EXAMPLE OF A NAVON FIGURE (NAVON, 1977), COMPOSED OF A LOCAL FEATURE ("A") AND A GLOBAL FEATURE ("E"). CULTURAL ORIENTATION CAN AFFECT WHETHER ATTENTION IS DIRECTED LOCALLY OR GLOBALLY.

We believe that research on social explanation can help the European-American analyst gain a more accurate perspective on an adversary. Given the well-documented tendency for European-Americans to bias attributions towards internal characteristics of actors, priming can help alleviate this bias and reduce the chances of a fundamental attribution error. Importantly, this would be beneficial for both other-culture and own-culture adversaries since European-Americans are prone to the attribution error regardless of actor characteristics. This is an example of how priming can benefit all analysts, regardless of regional or domain focus.

Adopting an Adversary Perspective: Tracking Common Ground in Conversation

Analysis critically relies on accurate understanding of communications between pairs of persons. This task is made extremely challenging by a number of conditions, including linguistic and translation difficulties; the often out-of-context nature of sources; idiomatic, coded, or intentionally obscure speech, as well as distorted or partial media.

Language pragmatics can also create challenges for the analyst. Effective understanding of a conversation requires going beyond the literal meaning of spoken words toward inferences about meaning (Clark, 1985). Speakers must monitor and update a representation of shared knowledge, or common ground, as they progress through the conversation. In this sense, conversation can be thought of as a game of meanings that follows particular rules (Anderson, 1983; Grice, 1975; Sperber & Wilson, 1995). For example, one rule is that speakers should not provide information that the partner already knows (Clark & Haviland, 1977). The task of inferring pragmatic meaning from listening to a conversation is complicated by the fact that shared knowledge is difficult to infer. Participants may be discussing events, persons or objects of which the analyst is not aware. At the same time, pragmatic rules specify that once the speakers know the referent, it does not need to be explicitly named. Even setting deliberate obfuscation aside, the analyst is necessarily "in the dark" with respect to common ground.

How can cultural priming help the analyst keep track of the shared knowledge while listening to a conversation? A study by Haberstroh et al. (2002) examined the relationship between self-construal and sensitivity to pragmatic rules in a conversation. Specifically, the authors asked participants to answer two survey questions: one about life happiness and another about life satisfaction. The researchers manipulated whether the questions were presented as part of two different questionnaires or part of a single 'same' questionnaire. In the 'same' condition, participants were instructed to answer two questions about their life while in the 'different' condition; the two questions were presented in different, purportedly unrelated surveys. The pragmatic meaning of the 'same' condition is that the questions are redundant. Consequently, one should expect a high correlation between answers to the two questions. By contrast, in the 'different' condition, the pragmatic rules imply that the questions are not redundant (i.e., they come from different surveys and are intended for different audiences). In this condition, the correlation between the ratings should be lower than in the 'same' condition.

In addition, half the participants received an independent prime while the other half received an interdependent prime before filling out the survey items. How did self-construal affect the sensitivity to the difference between the two types of question frames? First, when participants were primed with an independent prime, there was no significant difference between the question frames. It can be interpreted that participants were not very sensitive to the pragmatic difference between the two ways of presenting the question. By contrast, when primed with an interdependent self-construal, participants tended to give a different answer to the second question in the 'different' condition and the same answer to the second question in the 'same' condition. It can be inferred that the interdependent prime changed people's sensitivity to pragmatic meaning. In this case, participants became more sensitive to the rule that states that questions that come from different sources are likely to be non-redundant and require different information.

Although these results are encouraging, more research is needed to more fully understand the role of self-construal in conversational pragmatics and to ascertain whether there are practical implications. From a theoretical perspective, given the evidence for increased contextual sensitivity of individuals in an interdependent mindset (reviewed in the previous chapter), it is plausible that conversational rules are more likely to be respected if in an interdependent mindset. Thus, priming may be able to help analysts improve the accuracy of conversation tracking.

BOUNDARY CONDITIONS

So far we have addressed the overall effect of priming individualism or collectivism. We now want to turn to limiting cases or boundary conditions for cultural priming manipulations.

Different Types of Collectivism

As we discussed in the previous chapters, one of the principal goals behind the current project is to develop a richer understanding of the construct of collectivism. We have suggested that the cultural psychology literature has often used the term in a way that conflates several types of social orientations (Fiske, 2002). For example, the use of the concept does not differentiate such ostensibly disparate meanings as interpersonal connectivity, group belonging, duty, harmony, advice-seeking, hierarchy, and preference for group interaction (See Chapters 1, 2 and 3). Although studies in the priming literature have used "collectivist" primes extensively to cue an interdependent self-construal, we know of no study that convincingly unpacks the term by showing effects of priming different aspects of collectivism (Oyserman & Lee, 2008a).

For instance, one question is whether the studies that prime collectivism are priming the concept of group belonging vs. priming the interpersonal connectedness of the self to specific others (Brewer & Gardner, 1996; Prentice, Miller, & Lightdale, 2006). This distinction is important because it reflects different types of social identities. Interpersonal

connections are defined in terms of roles and responsibilities to others (e.g., mother-daughter) while group membership is defined in terms of the prototypicality of the self relative to the social category (e.g., "How typical am I of Psychology PhD students?"). In Chapter 3, we develop a theory of sociality in Asian cultures that is based on a similar distinction. In a foundational priming study, Brewer and Gardner (1996, Experiment 2) used a modified pronoun circling task to examine the effect of contextualizing the "we" prime in a small or a large group. Recall that the standard version of the pronoun task has participants circling pronouns in a story about a group going to a city (e.g. "We [I] go to the city often.") The authors manipulated the perceived size of the group that the "we" refers to. If the "we" prime is cueing social category membership, then the "large group" context should exhibit a stronger priming effect than a control (the neutral "it" pronoun). If "we" primes interpersonal connectedness, then a "small group" context should show a stronger priming effect. The authors found an overall effect of the "we" prime but did not find an effect of context group size, suggesting that the prime cues the two types of social identities equally. In another experiment, the authors found that, relative to control, the "we" prime elicited the same increase in interpersonal and collective self-descriptions, again suggesting that the "we" prime does not selectively activate the interpersonal or collective self-construal but is a more blunt manipulation likely to affect several distinct relational systems.

What is the Relationship between the Situation or Task and Priming Effectiveness?

Hong et al. (2003) suggest that priming manipulations will be effective to the extent that the primed self-construal is *applicable* to the task characteristics (see also Choi, et al., 1999). Drawing on earlier research on automatic behavior (Higgins & Brendl, 1995, 1996; Strack & Hannover, 1996), these authors suggest that a primed construal will become maximally applicable if the primed cultural orientation helps resolve competing features of the stimuli. In order to test this idea, Hong et al. (2003) modified the Hong (2000) materials in order to increase the salience of relational information in the display. They did this by visually reinforcing the difference between the individual and the group (see Figure 4.6.).
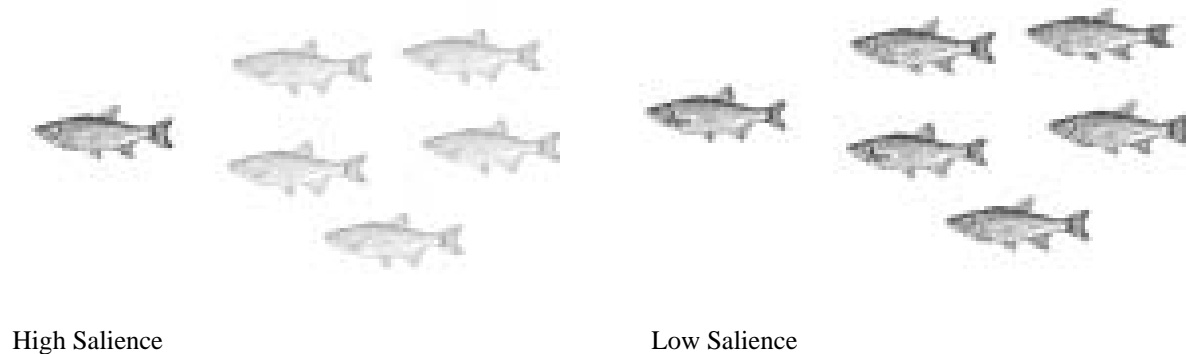

High Salience   Low Salience

FIGURE 4.6. THE MANIPULATION OF THE SALIENCE OF THE INDIVIDUAL/GROUP BOUNDARY IN (HONG, ET AL., 2003).

As expected, and as we have seen from the results of Hong (2000), there was a cultural priming effect on social explanation. Chinese bicultural participants in the Chinese prime condition were more likely to select a situational interpretation (fish "escaping" from group) than those in the American-prime condition. However, as predicted by the applicability hypothesis, salience of the individual/category distinction played a role such that the prime was significantly more effective for high salience stimuli than for low salience stimuli.

A related demonstration of applicability can be seen in the Prisoner's Dilemma game study we reviewed earlier (Wong & Hong, 2005). Recall that this study found a positive effect of priming collectivism on cooperation, but only if the game was played with a friend. This finding is consonant with the idea that playing against a friend created a condition that highlighted the tension between personal gain (winning the game) and social obligation to cooperate.

Are Primes that Activate Default Orientations Effective?

Gardner et al. (1999) suggest that self-construal primes are only effective if the prime goes against the default or dominant construal in the culture. Hence, priming interdependence in a collectivist culture should not be as effective as priming independence and vice versa. Kemmelmeier et al. (2004) support this claim in a study using a language prime in a

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Hong Kong sample, although the findings are only consistent with the hypothesis if Chinese is the default cultural orientation in Hong Kong. In their meta-analysis, Oyserman and Lee (2008a) discuss the effectiveness of priming collectivism in Western and Asian countries and note a sizeable difference in effect sizes between the two regions. Specifically, they find a much larger effect size for priming collectivism in the U.S. and Europe than in Asia (d = .44 vs. d = .08, respectively). The authors do note that the Asian studies tend to use weaker primes and confound language and culture materials. On the other hand, Oyserman & Lee (2008a) do not find the predicted difference in effect size between priming individualism in European-Americans and Asians (d = .39 and d = .39, respectively). Clearly, much more work is needed to understand the relationship between chronically active conceptual frames and temporarily induced orientations.

Theoretical Limitations

Taken as a whole, the studies we reviewed here, as well as those meta-analyzed by Oyserman et al. (2008b), show that priming individual or collective social orientation has a robust effect on a variety of outcomes variables. The contribution of this literature is to fulfill its promise of augmenting the cross-national literature with controlled experimental studies. Specifically, the studies build evidence for the situational view of culture, which provides a framework for understanding cultural universals as well as cultural differences in social processes (Hong, 2009).

Despite important progress, the literature on culture priming has a number of critical gaps. These omissions relate to limited study populations, confounding distinct types of individualism and collectivism, and the slow progress of extending predictions of the situational model to decision making, reasoning and other cognitive outcomes.

It is clear from the survey by Oyserman et al. (2008a), and our own review, that the study populations are extremely limited. While this research is termed 'cross-cultural,' only a handful of countries are represented. The vast majority of the studies were conducted with U.S. undergraduates, although samples from Germany, the Netherlands, and Hong Kong were also included. There were no studies with populations in Scandinavia, Eastern or Southern Europe, Latin America, Islamic countries, or Africa. From a practical point of view, regions critical to U.S. security interests (e.g., African countries, Afghanistan, Pakistan) have not received any research attention in the priming literature. More fundamentally, these important cultural regions have not received very much attention in cross-national theorizing or comparison (Oyserman, et al., 2002).

Although the regional characteristics of the sample are strikingly homogenous, other demographics are no more encouraging. The continued reliance on convenient student samples, whether in the U.S. or Hong Kong, is a serious obstacle to theoretical and empirical progress in psychology (Henrich, et al., 2005). The practice of drawing inferences about entire cultural groups or humanity at large from a sample of young, high socio-economic status, Western-educated urbanites continues, despite its obvious flaws. Unfortunately, studies that look beyond the student population tend to focus on managers in high-profile international firms, a group that is no less unrepresentative than the students (e.g. Ralston, et al., 1995). Focus on such limited, homogenous and atypical groups is likely to introduce serious confounds into most designs. For example, students tend to choose to move away from home in order to attend the highly ranked research universities where most studies are conducted. In a culture in which living close to parents is an important value, choosing to move away presents a powerful self-selection variable, reducing the likelihood that findings will generalize to the population at large.

This project will begin to address these limitations in two ways. First, we focus on Afghanistan and Pakistan as cultures of interest (see Chapter 3 of this review). Depending on the best ways of achieving project goals, we plan to conduct research with Afghan or Pakistani students, or immigrant community samples. Second, part of the project's objective is to validate new priming manipulations with an analyst sample. This group is likely to be more representative of the general population, because it is a sample of older, working adults likely to exhibit a greater range on a variety of demographic characteristics than typical undergraduate students.

A related limitation of the current studies is the nearly exclusive reliance on the individualism and collectivism dichotomy as the theoretical foundation for the studies. First, individualism and collectivism are likely confounded with other important variables, such as honor (Nisbett & Cohen, 1996) and power distance (Hofstede, 1980, see also Chapter 2). Second, as we discussed in Chapters 2 and 3 of this review, individualism and collectivism are concepts that confound a number of distinct forms of autonomy and belonging (Fiske, 2002). We also suggested that distinct kinds of relational models can provide a better account of cultural phenomena at the individual level than dimensional constructs. This project begins to address this shortcoming in the literature by proposing a framework for thinking about belonging that extends the work of Fiske (1992). We aim to test this advanced theoretical framework using the priming paradigm.

Finally, as we discussed in this section, considerable work remains to be done on the relationship between primed cultural constructs and effects on decision making and reasoning. We mentioned earlier in this chapter that shifts in endorsed values does not necessarily impact decisions (Briley & Wyer, 2002). Research on cross-national differences in judgment and decision making has not seen substantial progress. In an influential review, Weber and Hsee (2000) discuss a number of cross-national differences in risky choice, including the reliable but poorly understood finding of greater risk-seeking in Chinese than Western samples. These authors also stress the need for well-developed computational models that

take into account cultural differences. Although important framework models of the interaction between culture and situations do exist (Hanges, Lord, & Dickson, 2000; Oyserman & Lee, 2008b), few models have been developed to understand the role of culture in specific decision and reasoning tasks. Cultural psychology is likely to benefit from formal modeling efforts much in the same way that research on stereotyping has benefitted from applying formal models from cognitive psychology (e.g. Bodenhausen, 1988).

Priming Methods and their Applications to the Workplace

From our review of the basic priming literature, we formulate guidelines that maximize priming effectiveness in the workplace:

Guidelines for effective workplace priming
- Present unobtrusive, relatively passive priming task
- Present prime task that closely precedes target task
- Present primes in the same modality as target, although combination primes likely to improve overall intervention strength (visual and auditory prime to prime visual performance)
- It is not necessary to present the primes subliminally if the prime task does not hurt performance on target task
- Make sure to avoid habituation by alternating prime contents if using priming method repeatedly

The literature on culture priming offers a promising set of initial results on which to base workplace initiatives. In this section we address priming manipulations in the literature and discuss ways of adapting them to the workplace. Table 4.4. shows a description of a priming task followed by an assessment of strength of evidence for that prime's effectiveness. It is important to note that all methods were developed for use in a controlled laboratory setting. Any of these methods will need to be substantially modified or a new method proposed in order to use in the workplace. It is also worth noting that choosing a prime will likely involve trading off obtrusiveness and effectiveness.

Not recommended
- Group instantiation
- Pronoun circling task
- Story
- Similarities and Differences with Friends

At the outset, several priming methods used in the literature are not compatible with the analytical workflow. First, the group instantiation task requires deception and can thus be ruled out as more compatible with the laboratory than the workplace. The pronoun circling task is likely to suffer from habituation reaction. That is, if performed repeatedly across a number of work sessions, the analyst is likely to reduce the attention paid to the task, automating over the procedure (Moors & De Houwer, 2006). This is likely to diminish the effectiveness of the prime. It is not immediately clear how this task can be modified to reduce habituation, although the Scrambled Sentence Task, a similar manipulation, does not suffer from this problem and is more likely to be applicable. The Story task is also problematic because of habituation issues. Finally, the Similarities and Differences with Friends task, which requires people to write open-ended responses, is too intrusive for a demanding workplace. It is also unclear how to administer this task effectively across a number of sessions.

Recommended
General Syndrome Primes
- Scrambled Sentence Task
- Subliminal
High-Knowledge Primes
- Cultural symbol priming
- Language priming

The Scrambled Sentence Task, in which participants have to unscramble words to create a meaningful sentence, can be sufficiently unobtrusive for workplace context if it is presented in an engaging manner. There are also fewer issues with habituation since the pool of possible word sets is large. The subliminal prime is the most unobtrusive method. More research needs to be done to confirm its effectiveness and whether participants eventually habituate to the manipulation.

Analysts who have a great deal of experience with the culture of interest or are bicultural will likely respond to some form of cultural symbol priming. A laboratory example is shown in Figure 4.4. Prime content could be alternated to

avoid habituation. Although a truly unobtrusive presentation would be difficult, an engaging game-like 'warm up' task may be feasible.

The language priming is another reasonable candidate because it relies on a novel stimulus for every session (i.e., the analysis-relevant text), is unobtrusive, and does not introduce unnecessary work. However, the evidence for language priming is mixed. New studies are required to ascertain the effectiveness of this method. Also, the requirement for the language task is that the analyst has high proficiency in the language of interest.

TABLE 4.4. *SURVEY OF PRIMING METHODS AND THEIR APPLICABILITY TO THE ANALYTICAL WORKPLACE*

Priming material	Priming Task	Description	Evidence Support d(n) See note **
Cultural Syndromes			
Ind./Col.*			
	Group Instantiation (Briley & Wyer, 2002)	Collectivism priming involves group formation in the lab and task performance as a group (e.g. being seated with others, giving the group a name). Individualism primed by having people work individually.	.34 (3)
	Similarities and differences with family and friends task (SDFF, Trafimow, et al., 1991)	Think and write about "what makes you different from [similar to] your family and friends"	.49 (10)
	Pronoun circling task (Gardner, et al., 1999)	Circle personal singular "I" or plural "we" pronouns in a paragraph	.34 (15)
	Scrambled sentence task (SST, Srull & Wyer, 1979)	Unscramble words to create a meaningful sentence. Words are set up to be related to individualism (e.g. "I, me, mine, distinct, different, competitive") and collectivism ("we, us, ours, join, similar, alike").	.32 (7)
	Subliminal priming (Oishi, Wyer Jr, & Colcombe, 2000)	Very brief presentation of individualism vs. collectivism-related words (*own, mine, compete, I, me* vs. *share, ours, cooperate, us, we*)	.06 -.51 (1)
	Sumerian warrior story Trafimow et al. (1991)	Read a story about a choosing a warrior either on the basis of individual talent or tribe membership	.45 (12)
Dialecticism	Dialectical thinking (Spencer-Rodgers, Peng, Wang, & Hou, 2004)	Think and make judgments about contradictory life experiences (simultaneously positive and negative)	(1)
Cultural Symbols			
		Show examples of cultural icons to bicultural participants (Hong, et al., 2000)	(15)
Language			
		Present target task materials in one vs. other of the languages a bicultural participant knows (Bond & Yang, 1982)	.1 (10)

*Adapted from (Oyserman & Lee, 2008a)

**Mean d value (effect size) and number of studies in parentheses, from (Oyserman & Lee, 2008a) meta-analysis, number of studies in parentheses. Higher numbers mean a stronger effect.

Chapter 5. Conclusions and Next Steps

SUMMARY

In this report, we lay out the intellectual foundations for understanding the full range of collectivistic cultures, from centrally organized ones like China or Japan to tribal cultures like Afghanistan or Pakistan. We also describe basic research findings that support the potential use of the cultural priming technique in the aid of analysis. Specifically, we argue that relatively subtle interventions can significantly alter one's perspective and foster greater alignment with the culture of interest.

The findings presented in this review serve as a starting point for a program of research designed to improve the science and practice of analysis, as well as significantly impact the basic research landscape on culture. In this review, we outline a number of important current research challenges on culture in general and cultural priming in particular. Specifically, we argue that the focus on individualism and collectivism greatly restricts the range of societies which can be meaningfully addressed under current frameworks. In this report, we present a richer view of cultural differences, couched in terms of discrete finite categories of human relations. We show how this refined view has the potential to account for a variety of collectivistic cultures, including China, Japan and the Afghanistan/Pakistan region.

NEXT STEPS

In Phase 2 of this project, we aim to develop a set of measures designed to be sensitive to differences in cultural mindsets between Western, South Asian and East Asian respondents. These measures are likely to include survey items, as well as scenarios designed to take advantages of predicted differences between cultural groups. For example, when faced with a scenario of deciding whether to turn in a distant relative who has broken the law, cultural groups will likely construe the situation as being about different relational models and would likely make different choices. In order to show group differences, one possible research plan is to study Afghani immigrant groups living in the U.S. and compare their responses to those of American undergraduate students (or matched controls). Once we have developed a set of test items sensitive to cultural differences, we can use these as a measure of culture knowledge if administered to members of U.S. cultures, including analysts. Following this logic, an analyst's cultural knowledge of the adversary is high to the degree that his or her responses concord with those provided by members of the adversary's culture. Other measures of cultural knowledge, including existing or novel measures of specific values or general cultural competence may also be incorporated. In short, the activities of Phase 2 will test the theory presented here as well as produce a validated measure of cultural knowledge that could then be appropriated for use in the analysis setting. Finally, the findings of this report will be used to inform the generation of priming stimuli to be used in the development of analyst-relevant priming paradigm in Phase 3 of the project. Specifically, the scenarios developed in Phase 2 will serve as dependent measures in priming studies conducted with U.S. undergraduate and analyst populations.

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