LINKING CULTURE TO BEHAVIOR: FOCUSING ON MORE PROXIMATE COGNITIVE MECHANISMS

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ABSTRACT

In this commentary, we reiterate and build upon Early and Mosakowski's call for cultural researchers to investigate underlying cognitive structures through which culture influences behavior, looking beyond the models of value-orientation that have dominated previous research. We assess evidence that tapping specific, knowledge structures - as opposed to focusing on value dimensions - has more successfully provided proof of mediating and moderating cultural effects on behavior. Finally, we explore conceptual challenges to this approach of seeking proximal knowledge structures - namely, tapping knowledge that is culturally implicit as well as explicit, further exploring conceptions of agentic groups, and examining other types of agency.

Organizational researchers have long wished to understand how the macro-level variable of national culture affects individual-level behaviors, such as ascribing credit and responsibility, resolving conflicts and dilemmas, deferring to leaders and contributing to groups, and responding to incentives and critical feedback. Early and Mosakowski's article offers both an incisive review of past research on culture and behavior as well as valuable advice to current researchers striving...
to capture the linking mechanism. A central point in their assessment is that the dominant research program of modeling cultural influences as stemming from values has run dry, and to make further progress researchers need to incorporate more "specific mechanisms of influence" (p. 298). In this commentary, we elaborate on some of their themes about how the value model falls short and about what is needed. Particularly, we highlight their point that models need to incorporate the specific cognitions that proximally precede behaviors. We close by commenting on some of the conceptual challenges that lay ahead for modeling cultural influence on behavior through the role of specific cognitive structures.

Earley and Mosakowski's (E&M's) case for attention to mechanisms begins with a discussion of the conceptual and methodological challenges encountered in cross-cultural research and reviews many important theoretical and empirical contributions. Their argument culminates in an assessment of the dominant research program in the last two decades—modeling cultural influence in terms of individual differences in general value-orientations, such as individualism-collectivism. Although E&M discuss incremental improvements that redress some shortcomings of past research in the value model, they also advocate a shift toward a model incorporating specific cognitive structures. An outsider to the cultural research might comment, of course, that the role of specific cognitive structures should be obvious. That is, no matter in which direction the attributions of a cultural group are biased, the group's members must hold corresponding causal beliefs about the relevant outcome. For example, no matter which tactic or procedure a cultural group prefers to use to resolve a given kind of conflict, they must hold expectancies that the use of this tactic or procedure will result in a desirable outcome. Social psychology since the 1950s has worked with the assumption that you cannot explain a person's behavior simply from dispositional values or simply from his or her environmental context; you need to understand how the individual subjectively constructs a representation of the context and the available response options, and this hings on the cognitive structures and processes evoked by the context in the person's mind. How is it that cultural researchers have been using an explanatory model that has been largely discredited for half a century?

In their historical overview E&M greatly elucidate this question by describing the forces that shaped the field's historical trajectory. They note that organizational psychologists some decades ago proffered rich theories of the social and cognitive psychological processes involved in cultural influence on individual behavior. For example, Triandis's (1972) subjective culture model of cultural influence traces behavior to intentions; intentions to task-specific expectancies and valences; and these ultimately to more general beliefs and values. However, there has been relatively little empirical work testing the subtle linking processes posited by this model, perhaps because the sheer complexity of the model makes it difficult for researchers to know where to begin. Ironically, the name Triandis has become highly associated with a tendency to reduce culture and its influences on behavior to individual-level value-orientations, because his individualism-collectivism inventories have been so widely used (Triandis, Bontempo, Betancourt & Bond, 1986).

As E&M note, there is a paradox that the field (and even some of the same individual scholars) shifted from rich social cognitive theories to an operationalization more consistent with mid-century personality psychology. Part of the reason for this, no doubt, is the impact of Hofstede's (1980) study, in which a few dimensions such as individualism-collectivism, captured most of the country-level variance in a worldwide sample of IBM employees. Moreover, country means on these values correlated with many other properties of countries, suggesting that they are a mechanism through which culture has consequences. The promise of parsimoniously reducing the complexity of culture to a few value dimensions attracted both established culture researchers and neophytes alike. The dimensions of cultural values at the individual level of analysis became the holy grail of cross-cultural research. Longstanding cultural researchers such as Triandis, Hofstede, and Bond took the lead in developing inventories, and then a crowd of followers investigated whether individual-level scores on these dimensions account for cultural differences in almost everything under the sun (for a review of organizationally relevant studies, see Earley & Gibson, 1998). It is worthwhile to assess the evidence for values as mechanisms that has resulted from this research, and to compare it to the emerging evidence about knowledge structures.

**ASSESSING THE EVIDENCE FOR MECHANISMS OF CULTURAL INFLUENCE**

We can assess the evidence for value-orientations (or any other proposed mechanism underlying a group difference in behavior) in terms of two kinds of causal evidence, namely, mediation and moderation. For each, it is worth comparing the evidence for the role of values as opposed to more proximate knowledge structures.

**Evidence from Mediation Analysis**

Evidence from mediation analysis is sought when one can directly measure the mediating psychological trait or state and statistically establish its role in
accounting for the effect of the cultural group variable (typically, country) on the outcome behavior. Evidence for mediation requires at a minimum the following criteria: first, the mediating construct must be measurable with reliability and validity; second, scores on this variable must differ in the predicted manner across cultural groups and must predict the outcome variable; and, third, the effect of the more proximal mediating variable on the outcome variable should absorb or reduce the effect of the more distal group variable (Baron & Kenney, 1986).

As E&M attest, the construct of individualism-collectivism value-orientation has not fared well by this criterion. First, the validity of scales measuring individuals' general orientations on the individualism-collectivism dimension has come under conceptual (Ho & Chiu, 1994) and empirical critique (Schwartz & Bilsky, 1987). Proponents of this construct have tried to redress these matters by proffering revised two-dimensional and ultimately multi-dimensional constructs (Schwartz & Bilsky, 1987; Triandis & Gelfand, 1998); although these narrower constructs can be measured with more reliability, their validity continues to be critiqued (Briley & Wyer, in press).

With regard to the second criterion—that countries must differ in the predicted direction—the empirical record is surprisingly poor in light of the sweeping claims that are typically made. A recent meta-analysis of U.S./Japan comparisons concludes that as many studies have found Japanese to be higher in individualism as have found them to be lower in individualism (Takanou & Osaka, 1999).

Finally, with regard to the crucial third criterion, the dearth of evidence is nearly absolute; despite the many studies designed to demonstrate that individual differences in values account for country effects on behaviors, we are aware of few studies that ever found that individualism-collectivism scores mediated behavioral differences. When mediation has been reported, it is usually the case that the outcome variable is an attitude statement not very different from the ones on the inventory or it is the case that researchers tailored their own measure of values that were designed to be more proximal to the outcome behavior. As E&M note, even researchers in the vanguard of cultural value research have reacted to its empirical failings by calling for more specific cognitive constructs, suggesting that “beliefs, expectancies, or schemas are needed to better understand and predict individual behavior across cultures” (p. 26).

Let us ask, then, have studies of these more specific knowledge structures had any greater success in identifying statistical mediation? A paper by Bond, Leung, and Schwartz (1992) provides a direct comparative test. They studied several conflict resolution and resource allocation tasks for which Chinese and Western samples had been found to consistently differ, and they compared several constructs that might mediate these country effects: values, task-specific expectancies and task-specific values. The value measure was Schwartz’s inventory, which taps more fine-grained dimensions than do most individualism-collectivism instruments. Nevertheless, results showed that participants’ expectancies (cause-effect beliefs about the outcomes of particular actions) best accounted for country effects. For instance, Americans were more likely to resolve a given dispute through arbitration as opposed to informal bargaining not because they generally valued fairness more but because they expected arbitration to result in fairness.

Why do expectancies more accurately predict and account for country differences? An obvious factor is that expectancy measures are more specific than most value measures and can better predict specific behaviors (Azjen & Fishbein, 1975). Yet given that this study used Schwartz’ highly specific, multidimensional value measure, specificity seems unlikely to be the crucial factor. Another factor is that expectancy measures tap not only whether participants generally possess a particular cognitive structure (in this case, a causal theory) but also whether they have applied this theory to the particular task at hand. Higgins’ (1996) framework eloquently demonstrated that in order to measure a mediating process, we want to not only tap whether the cognitive structure is available to the individual but also whether the structure has become activated in relation to the task. Cultures may differ in knowledge structure activation because of differences in which structures are possessed or because of differences in which structures are at the fore of people’s minds (chronically accessible). These distinctions may help clarify some of the debates among cultural researchers. As E&M note, a major bone of contention for cultural research has been the consensus with which particular beliefs are held in a population, but parties to this debate often overlook the crucial factor of widespread accessibility of beliefs while focusing instead on widespread availability. Indeed, a current problem in cognitive anthropology is accounting for why some beliefs and values never exert a directive force over behavior although they are widely diffused in a culture (D’Andrade, 1996). We suggest that cultural research can learn much from social cognition research about the processes that trigger the influence of culturally conferred knowledge on information processing; in short, we advocate a dynamic constructivist approach to culture (Morris, Menon & Ames, 2001; Hong, Morris, Chiu & Benet-Martinez, 2000).

The dynamic constructivist approach fares well not only in its capacity to retrospectively account for past findings, such as those of Bond et al. (1992); it also fares well in a priori tests. Briley, Morris and Simonson (2000) studied
cultural differences in compromising as a decision heuristic (for instance, buying the compromise option—a computer with moderate quality for a medium price—rather than either extreme option—the least expensive or the highest quality computer). They predicted that cultural differences should appear in conditions that require participants to provide reasons and thereby require participants to draw on culturally conferred knowledge structures. The results showed the predicted pattern that a reason requirement made Chinese more likely to compromise and Americans less likely to compromise. The reasons that participants provided were categorized into several types of generic decision rules, and tests of mediation found that differential decision rules drove the different choice behaviors. Other studies confirmed that the two cultures differ with regard to accessibility of rules favoring compromise and extreme options: injunctions to compromise between extreme ends is more salient in Chinese culture, and injunctions to optimize one end while sacrificing the other is more salient in American culture. Participants’ scores on individualism-collectivism inventories were also measured but they failed as mediators of the country difference in compromising. In sum, mediation analyses suggest the mechanism for cultural differences are specific, activated reasons.

Evidence from Moderating Conditions

Let us now consider a second way to test distinct mechanisms through which culture influences behavior. Different proposed mechanisms yield different predictions about the boundary conditions of cultural effects, about the variables that should moderate the differences observed between groups from different countries. The most general proposals about individualistic vs. collectivistic value-orientations do not yield clear predictions about boundary conditions, but they predict sweeping broad patterns; that is, in any situation where it is possible to be collectivist, Chinese should be more collectivist than Americans. One boundary condition discussed under this rubric is the boundary between ingroup and outgroup others. In conflict resolution studies, researchers have found that collectivists avoid conflict more with the ingroup but not with the outgroup (Leung, 1988). This said, it must be acknowledged that theories of collectivism are vague about where the ingroup/outgroup boundary is drawn. A more specific set of moderating conditions is highlighted in proposals that collectivist values are domain specific (Hui & Triandis, 1985), collectivism about the family, the workplace, the nation, and so forth, being independent dimensions. Yet this approach to collectivist values has not been empirically pursued to our knowledge. On the whole, we see that there are few precise and distinctive predictions about moderating conditions yielded by the proposal that cultural differences are driven by individualism-collectivism orientations. This is not surprising in light of our earlier point that the construct gained popularity because it was billed as being sweepingly relevant across behavioral domains.

Now let us look at the progress made in the much briefer history of research on knowledge structures as mechanisms for cultural differences. One set of predictions follows the logic that any knowledge structure is limited in applicability. For example, research on attribution for wrongdoing has identified boundary conditions of this sort. Americans adhere more strongly to a theory of individual agency, that persons act autonomously, whereas Chinese adhere more strongly to a social theory of collective agency, that groups act autonomously (Morris & Peng, 1994). From this proposal, Menon, Morris, Chiu, and Hong (1999) were able to predict that the same act of wrongdoing (e.g., making an organizational decision that turned out to be inequitable in favor of the decision maker) was attributed to dispositions (e.g., greed) as opposed to external factors (e.g., chance, unforeseeable external changes) by American participants when the decision maker was an individual rather than a group. Yet Chinese participants made more dispositional attributions when the decision maker was a group rather than an individual.

In another example of boundary conditions on cultural differences, Zemba, Morris, and Ames (2001) identified differential patterns in assigning responsibility to leaders for organizationally produced harms. Many observers of international business previously observed that although Americans are often credited and blame organizational leaders for organizational performance, there are some classes of events for which Japanese are much more inclined to see leaders as responsible—for example, an airliner’s deadly crash or a government’s recently exposed harms—even though these harms were clearly caused under the reign of previous administration. Drawing on the notion that implicit theories of agency differ, Zemba et al. argued that since Americans perceive outcomes to flow primarily from acts of individuals, Americans hold leaders responsible only if the harm can be traced to the leader’s personal actions; hence, today’s leaders will not be held personally responsible for harms caused before they took office. However, since Japanese perceive outcomes to flow from acts of the organization, the organization itself is seen as responsible; thus today’s leader also inherits responsibility as a representative of that organization, regardless of whether this person was in office when the harm was caused. In this way, time in office moderates whether Japanese and American responsibility assignments to leaders will converge or diverge. In sum, the applicability conditions of particular implicit theories and decision rules provide a way to draw unique predictions about the boundary conditions of cultural
differences – predictions not made by other proposed mechanisms such as values.

Another set of boundary conditions follows from the literature on epistemic states as moderating an individual’s reliance on top-down imposition of knowledge as opposed to bottom-up attention to perceptual detail in information processing. Whereas the limited applicability of knowledge structures yield predictions about country X domain interactions, the effects of epistemic states yield country X perceiver’s state interactions. Kruglanski and Webster (1996) argued that the tendency to need cognitive closure, and hence to seize on highly accessible knowledge as a guide to interpretation, is increased by a number of situational factors such as time pressure, and differs chronically among individuals. Chiu, Morris, Hong and Menon (2000) found that domain-specific cultural differences in attribution are magnified by high need for closure (NFC), whether manipulated experimentally or measured as an individual difference. Fu and Morris (2001) found the same NFC interaction with cultural differences in negotiation strategy and dispute procedure choices. Another epistemic variable associated with increased reliance on prior knowledge, cognitive load, has been found by Knowles, Morris, Hong and Chiu (2001) to increase cultural differences in attribution. Finally, the epistemic state of having been primed by exposure to images or words related to the knowledge structure has been found to increase reliance on these knowledge structures (Hong et al., 2000).

**CONCEPTUAL CHALLENGES THAT LIE AHEAD**

*Are Cultural Theories Implicit or Explicit?*

Although we have noted some successes in linking culture to behavior through knowledge structures, there are several unresolved questions about this explanatory approach. The first question concerns the level of abstraction and explicitness with which the relevant knowledge structures are represented and used. Proposals within the field have varied and, even within our own research, proposals range from relatively concrete, explicit beliefs – the decision principles discussed in Briley et al. (2000) – to relatively abstract, implicit beliefs – the agency theories discussed in Morris, Menon and Ames (2001).

In social psychology, “implicit” knowledge is often assumed to be knowledge to which individuals have no introspective access (e.g. implicit associations of valence with social categories, studied by Banaji [2001], or emotion-based conceptions of morality studied by Haidt [in press]), although sometimes it means merely that individuals fail to subjectively notice when the knowledge is guiding their information processing (Dweck, Hong & Chiu, 1993). Social psychologists’ implicit theories are similar to what anthropologists call “intuitive” theories. These are theories that informants reveal through their thought patterns, but are not “conscious” theories, which informants report and defend explicitly (for a discussion, see Gil-White, in press). In cognitive psychology, the notion that people hold implicit theories that guide inferences but that cannot be articulated is axiomatic in several research programs (e.g. children’s learning, see Gopnik & Meltzoff, 1997; category coherence, see Murphy & Medin, 1985).

To the extent that the mechanism for some cultural differences turns on implicit knowledge structures, it is challenging to measure them directly and test for mediation. One tack is to measure through means other than direct reports, as is done in the Implicit Associations Test (IAT) literature (Banaji, 2001). Another tack is to measure the more concrete cognitive tools that depend on the theory – individuals’ reports of their expectancies, reasons, and explanations – rather than trying to elicit the underlying axioms. This is a position taken by researchers of “situational cognition” a neo-Vygotskian school that emphasizes the ways inferences are facilitated and shaped by culturally conferred tools, whether they are learned systems or external artifacts. As Resnick (1994) puts it, “the tools of thought . . . embody a culture’s intellectual history . . . Tools have theories built into them, and users accept these theories-albeit unknowingly-when they use these tools.” This perspective is useful in considering how theories are transmitted; by using tools in interactions with others, one eventually transmits the theory to another person, without ever necessarily being conscious of holding the theory (Morris et al., 2001).

*What Kinds of Cultural Theories of Agency Remain for Future Research?*

Perhaps the majority of dynamic constructivist research relevant to organizational psychology has focused on theories of agency. These include what attribution theorists have called “naive theories of action,” what development psychologists have called “theories of mind,” what theorists of motivation have called “beliefs in self-efficacy” or in “collective self-efficacy,” and many other constructs. Agency conceptions can be distinguished by several structural features:

(a) there is an agent with certain properties who performs an action;
(b) there is object which undergoes a change;
(c) some level of contingency between the action and the change.

Although it is easy to sketch these features in the abstract, more research is needed to instantiate the terms agent, object, and contingency in a description.
of the specific conceptions of agency conferred by different cultural traditions. Individuals and other social units (relationships, teams, groups, organizations, nations) can stand in as the agent or as the object. In considering conceptions of agency, then, we must be mindful of Coleman’s (1990) distinction between the acting self and the object self, like the classical Median distinction between the I and the Me. To close let us consider conceptions of group agency, which have spurred a lot of recent research and then other conceptions of agency, on which research is just beginning.

Conceptions of Agentic Groups

Cross cultural research has done a great deal to raise awareness that people hold conceptions of agentic groups, not just agentic selves or individuals (Earley, Gibson & Chen, 1999; Menon et al., 1999). Yet this research has not yet clarified what properties perceivers ascribe to groups in holding them to be autonomous. Several interesting possibilities have been raised in different fields involved with this question. Su, Chiu, Hong, Leung, Peng, and Morris, (1999) suggested that, because of the greater historical stability of the social order in China and lesser rights for individuals, Chinese perceive characteristics of social groups to be fixed and individuals’ fluid, whereas Americans perceive individual characteristics as fixed and those of groups as fluid. In Dweck et al.’s (1993) terms, Chinese are entity theorists about social groups whereas Americans are incremental theorists. Consistent with Dweck’s logic, Chinese thus perceive groups to control their outcomes rather than to be affected by their contexts.

Another proposal inspired by social psychological concepts is that Chinese social perceivers may be more inclined to perceive entitativity in social groups (Hamilton & Sanders, 1992). An entitative group is one seen as coherent, homogenous, and object-like (e.g. a marching battalion of uniformed soldiers). If groups in China, such as families, typically shared a common fate and moved together, then the tendency to see groups as having entitativity might be more ingrained in China. Research by Hamilton and Sherman (1996) has found that perceived entitativity determines the extent to which groups are perceived as causally responsible for outcomes.

A third proposal is that cultures differ in the extent to which groups are essentialized. People treat some categories in the world differently based on the assumption that category members share an essence (an unseen, internal property that causes most of their overt behavior). In this way we think about animal species as being different from artifact categories. If we learn, for instance, that one raccoon likes to eat berries, we are willing to infer that all raccoons eat berries, regardless of the size of the raccoon. However, we do not infer that all toy dogs take D batteries after learning that a particular toy dog takes D batteries. Essentializing the category means that we more quickly make sweeping inferences about it. Cognitive anthropologists (Gil-White, in press) have argued that social perceivers essentialize certain social categories, such as gender and ethnicity, but not other categories such as occupation; essentializing is largely done as a function of whether members are “born into” the category or not. So why would the essentializing of social categories differ across cultures? It may be that in traditional Chinese culture, where entry into most firms and other significant social groups was a matter of being born into the family, more groups and organizations were essentialized in popular thought. Even though today the objective composition of these social units has changed in Chinese societies such as Hong Kong and Taiwan, and even more so in mainland China, contemporary Chinese social perceivers might nonetheless have inherited cultural habits of essentializing groups and organizations. Hence, when such perceivers encounter a new group – regardless of whether it is a traditional family firm or not – they may be more inclined to essentialize it – to judge that its members share an unseen internal property that connects them and causes outcomes.

Overall, there are several promising, inter-related ideas about how it comes to be that different kinds of social groups are conceived of as agentic.

Other Kinds of Agents

While conceptions of agentic persons and agentic groups have received at least moderate research attention, there has been little research on conceptions of impersonal agents, such as God, fate, or luck. Sometimes these agents are conceived to produce outcomes on their own and sometimes to do so in conjunction with, or in response to, the striving of an individual or a group (Young and Morris, 2001a). Although many researchers may be inclined to dismiss such beliefs as pre-modern superstitions, there is no contemporary society where such beliefs do not play a considerable role in many organizational decisions.

Conceptions of the agency of divine actors are crucial in shaping the practices of global religious organizations, such as the Roman Catholic or Mormon Churches, as well as theocratic regimes, such as the Taliban. Likewise, individuals who act on intuitions of luck and fate are not confined to casinos. Individuals who accord some weight to such intuitions in their decisions can be found at the highest ranks of industry and finance (Boland et al., 2000).

Luck and fate beliefs seem particularly promising ways to understand cultural differences in decision-making. Cultural differences in achievement motivation deserve further research. While we have learned that conceptions of collective self-efficacy are important in determining responses to particular outcomes (Earley,
1989, 1994), the role of conceptions of luck may elucidate other achievement situations. Academic test scores and economic outcomes differ tremendously across cultural groups and, while access to resources is the primary factor in determining these outcomes, culturally bound motivational dynamics seem to be another major contributor. Recent research suggests that differences in conceptions of luck play a role in this (Young & Morris, 2001b). Importantly, our logic and findings suggest that luck beliefs can be helpful. We suggest that Chinese students succeed because conceptions of luck make them resilient and enable them to sustain motivation in the face of negative feedback. Chinese conceive of luck as a temporarily internalized force that brings about outcomes (for example, ensuring success by arranging for the questions one has studied to be on the test). Also luck can be cultivated, through a variety of practices. Theories of achievement motivation and its cultural variations can be thus be enriched by incorporating culturally bound, domain-specific beliefs about luck.

Fate beliefs are developed in every culture to explain the iniquity of human fortune, the lack of alignment between deservingness and outcomes. Whereas luck beliefs affect motives and decisions related to achievement, fate beliefs affect motives and decisions related to justice. Many justice related findings long studied in American contexts, such as the tendency to derogate victims of crimes in order to maintain a belief of the world as just (Lerner, 1978), may be likely to occur in other cultures where it is believed that outcomes in this life can reflect actions in past lives or actions of ancestors; instead the victim would be perceived as having sinned in a past life or as having been punished for sins of the father, judgments that might make it easier to be sympathetic toward the victim. The large cross cultural literature on differences in reactions to resource allocations (e.g. Leung & Bond, 1984) may be similarly elucidated by an understanding of perceptions of cosmic justice as well as localized temporal justice.

To summarize, we applaud previous and continued attempts to understand culturally influenced behavior by identifying the cognitive structures that more proximally drive the behavior. This approach of seeking the underlying cognitive mechanisms has been more effective than value-based models of behavior in demonstrating the mediating and moderating effects of culture on behavior. Although this approach is more promising than approaches that seek to identify broad differences in value-orientation, researchers who link culture to behavior through knowledge structures will face some challenges. They may be called to tap implicit knowledge structures as well as explicit. They will be called to refine their current conceptions of agentic groups, and to possibly expand their definition of agency to include other explanatory beliefs, such as fate and luck.

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