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Seeking the Middle Way: An Exploration of Culture, Mind, and the Brain

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In one of his brilliant essays, Isaiah Berlin distinguished between two types of intellectuals, the hedgehog and the fox (Berlin, 1953). Some scholars have a deep commitment to a particular framework or viewpoint. If they are good enough, they perform a penetrating analysis by using this framework. They are hedgehogs. Some prominent hedgehogs, according to Berlin, include Plato, Pascal, and Nietzsche. But if you are a hedgehog and not as good as they are, then you may easily become a victim of your commitment. Your perspective could be either too narrow, too rigid, or worse, both. Some other scholars are more diverse in orientation, entertaining a variety of ideas and phenomena. They are foxes. Some of the most brilliant scholars of this sort include Aristotle, Shakespeare, and Goethe. But if you are a fox and mediocre, your work is dispersed without any clear focus or thread. Berlin's perceptive analysis makes me realize that I have always tried to hit the middle, aspiring to be both while avoiding being fully wedded to either. I may not be completely successful, but at least I am still trying.

In this essay, I will discuss why I have sought the middle way and how this effort has fared. I will start with a brief memoir of where I came from and why and how I became fascinated with the study of culture. I will then illustrate, in a broad stroke, what

we have accomplished. I will also explain why I have decided to take on the questions of the brain in this connection more recently. Throughout, the theme is the dialectic between the effort to see many different effects with various methods (like Berlin's fox) and the single-mindedness in how we might understand the relationship between culture and the agency (like his hedgehog).

From Yaizu to Kyoto, and then to Michigan

I grew up in the coastal town of Yaizu, near Mt. Fuji in Japan. Yaizu was known for big-time tuna fishing. Once a fishing boat left the port, it would go all the way to the Atlantic chasing the schools of tuna, not coming back for more than a full year or even more. People, especially those living near the ocean—fishermen and their wives – were cordial but temperamental. They were strong people you would not want to mess around with. Their kids were my friends, who shared the same character and temperament. I was a son of a Buddhist priest and had none of it. I sensed quite a bit of mismatch. Nevertheless, when Dick Nisbett and Dov Cohen began investigating the culture of honor in the American South (Nisbett & Cohen, 1996), I knew what they were talking about. That culture existed in my hometown.

My path to social psychology started in Kyoto in the second half of the 1970s. I was an undergraduate at Kyoto University. I majored in psychology, learning all the details of the animal learning literature (then considered “the” mainstream of psychology). The elitist aura of scientism was pleasant. And I learned quite a bit. What I learned back then proved invaluable for me as an experimental cultural and social psychologist. Nevertheless, the entire endeavor seemed out of touch with the rich reality

of social life—think about the Yaizu folks! After all, the stuff was based exclusively on mice and rats.

I was drawn to Freud and Jung initially and then to more social sides of experimental psychology. My fellow students and I enjoyed interpreting each other's behaviors by using newly learned vocabularies of attribution and dissonance. Interpretation of everyday behaviors was more fun and engaging than interpretation of dreams discussed in my clinical psychology course. These social psychological ideas were news to me. They revealed, I felt, something I did not know that I had. I enjoyed learning new ways of understanding others and myself.

A puzzle. Gradually, however, one question began to lurk in my mind: Why is it that a vast majority of scholars cited in the textbooks I read had Western names? Why is it that nowhere in these books to be found are any Asian names, let alone Japanese names? Might the field be completely underdeveloped in Japan? If so, what might it take to do research that is worthy of citation in these textbooks?

I did not formulate these questions in any sophisticated terms. I did not know that knowledge production and dissemination are part of the story. Nor did I know anything about structural inequality in material and symbolic resources that undergird the process of knowledge creation. Most of all, I had no idea that access to local culture—to its commonsense and everyday practices—is crucial to becoming a top-notch researcher in the field. You would have to know your culture well enough to act properly and impress others for sure. But in the case of psychology, this culture is part and parcel of what you study—a point I will come back to. Today, there is a welcome movement toward diversity and equity. These issues have emerged at the forefront of our field. In

the U.S., systemic racism is undoubtedly the most urgent issue. However, the same structural problem exists on a more global scale. With the benefit of hindsight, I would say that the discipline was and still is local and Western. There was and still is “systemic Westernism.” Today, many of us have sought to find ways to globalize the discipline.

Back then, however, none of that was there to tell me why my textbooks had been loaded with Western names. To find out, I took the chance to go to the U.S. to learn the discipline and to find out why non-Europeans were so vastly underrepresented in it. It was 1981. I was lucky. I met Alvin Zander at a social psychology seminar held at Osaka University in his honor. Back then, “Cartwright & Zander” was the trade name for social psychology in Japan since these two scholars had edited the authoritative book on group dynamics, which had a huge impact on the development of social psychology in Japan. I still call him Zander sensei, with all affection attached to the term sensei – “teacher” in Japanese. He was kind and receptive to my ideas and plans. He nurtured me as a newcomer to the field and encouraged me to come to the U.S. for graduate training. Indeed, he did help me out, and soon, I received a Fulbright scholarship. Shortly afterward, I got admitted into the social psychology Ph.D. program at Michigan.

Culture Matters

In the fall of 1982, I arrived in Ann Arbor, Michigan, to start graduate training. I took Psychology 682, Advanced Social Psychology, taught by Hazel Markus. I began working on person memory experiments with Gene Burnstein. Bob Zajonc’s office was right across from the student office I shared with two other graduate students. Dick Nisbett had just published his human reasoning masterpiece with Lee Ross. James Jackson was starting his life work on the social psychology of Black Americans. And

Nancy Cantor and David Buss were nearby in an adjacent building. All these individuals have since become the meat and bones of me as a psychologist. Nevertheless, the most significant moment of revelation came through numerous conversations and interactions I had with my fellow graduate students in the same cohort. This cohort had four or five individuals with extraordinary intelligence and fascinating personality.

While studying social psychology in Japan, I felt that theories such as attribution and dissonance showed what I must be doing even though I never thought I was. They were academic abstractions good for ivory-tower interpretations of others' behaviors. Perhaps, precisely because of their surreal nature, they had seemed quite profound. I had thought, for example, "I did not know that I was reasoning about social events as if I were a scientist. It's fascinating, and attribution theory is showing something I did not know." Or I had felt, "Somewhere in my mind, there must be negative emotional arousal since the two events happening to me present a cognitive conflict. Festinger pointed out to me this thing called dissonance I never felt. I must have it deep inside of my mind."

Now, I was in Michigan, watching my fellow American friends think, act, and react firsthand. I felt how true dissonance and attribution theories were to them in ways they were not to me. My American friends did show direct evidence of active thinking about social events in what they said and how they said it. They lived attribution theory. Also, they revealed their negative arousal on the face or in a spontaneous burst of frustration. The dissonance was real and visible. Neither attribution nor dissonance was a dry, academic abstraction as they had been for me. While in Japan, I felt that these abstractions showed you what you must be doing even though they do not seem real. In the U.S., they showed you what people experience online. To use the jargon of cultural

anthropology, both attribution and dissonance turned out much more “experience-near” for Americans than for Japanese.

Culture and the self. Around that time, I had numerous conversations with Hazel Markus. We often joked around about how “crazy and unusual” each other was. What seemed most natural and sensible for one was not to the other. We exaggerated our cases to make fun of each other. The point of this exchange was that social behaviors have multiple layers of meanings, and these meanings are inseparable from culture. For Hazel, Americans are motivated to act freely, and behaviors based on their free choices are most genuine and powerful. They are, as we characterize them, independent from others. For me, they were merely conforming to the norm of freedom, and no behaviors would exist outside of the nexus of strong normative influences. I was so interdependent that even freedom seemed best defined as a form of conformity. Our conversations on this and numerous other topics eventually led to our 1991 paper on culture and the self, published in *Psychological Review* (Markus & Kitayama, 1991).

When this paper came out, I was on the Psychology faculty at the University of Oregon. In 1993, I left Oregon to accept a faculty position at Kyoto. Over the next 10 years, I worked with many Japanese students to explore many topics. We explored the cultural basis for the fundamental attribution error. The main hypothesis was that this error was a manifestation of a cultural belief system that defines the self as an independent actor. In many cultures, including Japan, where an alternative cultural belief that defines the self as interdependent with others is more dominant, this effect may be attenuated. Thus, an examination of cultural variation in the fundamental

attribution error seemed suitable for testing the proposition that cultures vary on the dimension of independence and interdependence.

We first replicated the prior evidence that Americans draw a strong attitude inference from what another person says about a political issue under an obvious social constraint (e.g., being assigned to read a particular opinion). We then showed that this effect is much weaker in Japan. Japanese are sufficiently sensitive to the situational constraint to become agnostic about the person's attitude even if she makes a clear attitude statement (Masuda & Kitayama, 2004).

Multiple forms of dissonance. To tell you why I had a particular interest in this topic, I must bring you back to my earlier experience at Michigan. As noted above, I learned quite a bit about American culture through first-hand interactions with my fellow graduate students. Through these interactions, I arrived at the idea that dissonance, as formulated by Leon Festinger and his colleagues, is more "experience-near" for Americans than for Japanese. However, after spending some time in Japan, I became puzzled: Many of my fellow Japanese did show the kind of sulkiness or indignation that shared some family resemblance with the burst of frustration I had earlier identified as a direct manifestation of dissonance in my American friends. In Japanese, we do not call sulkiness or indignation "dissonance." We call it "iji (意地) ."

So, I did something very simple. I had a group of Japanese undergraduates list situations in which they felt "iji." And I found something remarkable. In almost all cases, the situations listed involved someone else. For example, you may feel "iji" when someone important opposes your favorite plan. Or someone planning a thesis research project may feel "iji" when her teacher says that the plan will not work. If you know

anything about dissonance theory, this observation should come across as perplexing. Didn't you know that dissonance happens when your behavior is freely chosen so that your behavior is indicative of your true attitude? Only under such conditions will you feel dissonance if the behavior is counter-attitudinal. The best way to eliminate any social interference is to make your choice in private, in the absence of any social eyes. Given this reasoning, if "iji" requires social eyes, it cannot be the dissonance as formulated by Festinger and company. However, "iji" does provide the kind of indignation or sulkiness that can be glossed as dissonance. Might it be the case that dissonance takes multiple forms depending on culture?

Armed with this theoretical framework, we carried out a series of free-choice dissonance experiments in Japan and the U.S. (Kitayama et al., 2004). Subjects chose between two equally attractive items. The question is whether they will end up liking the chosen item better than the rejected one. If this effect happens, cognitive dissonance must have happened. The standard dissonance theory says that the choice must be made in private since choice constrained by social pressure is not revealing the true, inner self. And there is ample evidence that Americans show this pattern. However, Japanese may not experience this dissonance since the inner self does not carry much significance in their cultural context. Instead, it is social eyes that make them worry about their choice, which could motivate them to justify it. The upshot is that Japanese will never experience dissonance in the absence of other people's eyes. In contrast, Americans will never experience their dissonance in the presence of these eyes. To manipulate social eyes, we set it up such that a poster showing several schematic faces was placed in front of each participant when the person made a choice. So, from each

subject's perspective, the schematic faces were "watching" them. The results were as remarkable and "just as predicted." Overall, Americans showed more choice justification when they made a choice in the absence of this poster, but Japanese showed more choice justification when they made a choice in its presence.

A series of explorations. Attribution and dissonance are only two of many such effects. I was like a fox—so Berlin might have said. These effects included the following:

- Attention is more holistic in Asians than in European Americans (Kitayama et al., 2003).
- Self-enhancement (or better than average effect or self-serving bias) is much weaker for Asians than for European Americans (Kitayama et al., 1997).
- Happiness is personal for European Americans, but it is social for Japanese (Uchida & Kitayama, 2009).
- Success is a better motivator than failure for European Americans, but failure is a better motivator for Asians (Heine et al., 2001).
- When listening to a verbal message, Asians are more sensitive to vocal tone than European Americans (Ishii et al., 2003).
- European Americans actively try to feel positive emotions, but Asians do not. Consequently, feeling negative emotions constitutes a personal threat for European Americans, but not for Asians (Park et al., 2019).
- Neuroticism is a health risk for Americans, but not for Japanese (Kitayama, Park, et al., 2018).
- Conscientiousness is a health-protective factor for Americans, but it is a health risk for Japanese (Kitayama & Park, 2020).

- Americans show a decrease in purpose in life as they age, but Japanese do not (Kitayama et al., 2020).

Other investigators have identified other important cultural differences, which provided the empirical backbone of the field. It is easy to encourage young scholars to go after low-hanging fruits. But it is not easy to find trees that bear such fruits. We were lucky enough to get to such trees. Surely, the time was ripe for cultural research in psychology to blossom.

Cultural Psychology's Unique Contributions

Mutual constitution. Meanwhile, Hazel and I continued our conversation about how we might best conceptualize the relationship between culture and psychological processes. Not having the right word to signify what we thought about, we used hand gestures to express the idea that the two putative entities of culture and the mind are interacting with one another to such an extent that they become fused and inseparable. Hazel is an amazing intellectual who grasped the dynamic interplay between culture and the psyche even in the absence of any words to describe it. I could also immediately get it when Hazel tried to show, with her gestures, how this dynamic might work, aided perhaps by my upbringing as the Buddhist priest's son. My early experience may have given me some head start for appreciating the holism inherent in our early thinking. From the beginning, we had a commitment to this sort of holism. Berlin may well have seen two hedgehogs here.

The effort was deeply influenced by the French philosopher Pierre Bourdieu (1977), who argued that cultural practices are internalized to form various action tendencies. In combination, these tendencies constitute agency ("habitus" in his

terminology). Thus, when this agency operates, it spontaneously generates behaviors that are congruent with the cultural practices from which they are derived. A similar idea was proposed by the British sociologist Anthony Giddens (1984), who noted that social structure shapes individual agency, whose actions, in turn, are instrumental in reproducing the original social structure. But most influential to us was Rick Shweder (1991), the Chicago anthropologist who drew our attention to the dialectic between culture and agency by pointing out that these two processes “make each other up.”

And they are right. Let’s go back to the fundamental attribution error in European Americans and its near-absence among Asians. American culture emphasizes individual choice and initiatives. Hence, when seeing another person’s behavior, it is reasonable to find their internal attributes, such as attitudes and personality traits, to understand why they act the way they do. Thus, on the one hand, there is a culture that emphasizes personal choice, and on the other hand, there exists a psychological propensity to look for an internal attribute to explain another’s behavior. These two phenomena are two sides of the same coin. One reinforces the other. They are mutually constitutive.

Or consider the two forms of cognitive dissonance. In a culture that emphasizes individual autonomy and freedom, one’s unconstrained action reveals the true nature of the self. Hence, even actors themselves think their actions are not reflective of their own choice if they are under the scrutiny of others (i.e., in the presence of social eyes). This psychological propensity toward “personal” dissonance reinforces the culture of autonomy, freedom, and independence, from which it is derived. Conversely, in a culture that emphasizes social obligation, duty, and belonging, one’s action is

meaningful only in social situations (i.e., under the scrutiny of others). Hence, people cannot care less about their behaviors taking place in private. But they do worry profoundly about their behaviors performed under the social eyes. This psychological propensity toward “social” dissonance lends itself to the culture constituted by social obligation, duty, reputation, and the like.

Cultural psychology in a broader context. The investigation of culture from a psychological perspective was exciting and surely absorbed a lot of energy from all of us involved in this effort. However, the study of culture has a respectable history that can easily be traced back for at least a few centuries (Jahoda, 1993). Hence, the study of culture in psychology discussed here is only a small part of this larger and longer history. We might ask then, what if any was the unique contribution we made to this broader scholarship.

Part of the answer to this question was discussed above. Many of us, particularly Rick Shweder and colleagues, brought to the fore the possibility that mental processes are so tied up with culture that culture is somehow internalized while at the same time mental processes are being externalized to constitute cultural processes. This idea of mutual constitution is a key piece that is fundamental to all studies of culture. I am very proud that Hazel and I contributed to the rediscovery of this idea. However, there is another piece that is implied by the idea of the mutual constitution but, strictly speaking, that is logically orthogonal to it.

This second contribution of cultural psychology to the broad scholarship on culture stems from the methods of experimental psychology we used in our investigation. These methods enabled us to explore how deep culture might go “under

the skin.” Culture is embodied and perhaps “embrained.” I would say, for the first time in the history of culture research, our effort provided credible evidence that culture is a fundamental constituent of the basic processes that comprise the human mind, such as cognition, emotion, and motivation. This means that the understanding of the human mind, by its very nature, would be impossible without the consideration of culture in its theoretical framework. This brings me to my last topic.

Culture and the Brain

Neuroplasticity. A lot has changed in psychology over the last several decades. Perhaps the most dramatic influence has involved the emergence and development of the science of the brain. Especially in recent decades, both functional magnetic imaging (fMRI) and electroencephalogram (EEG) have become readily available even to those without any formal training in neuroscience. Although initially adopted by cognitive psychologists, the neuroscience approach ironically came to challenge the fundamental premise of the field, namely, that the mind is like a computer, fixed and hardwired. Studies on neuroplasticity have shown that the brain (and thus the mind) could undergo systematic structural changes through long-term “training.” In one particularly impactful study, for example, Maguire et al. (2000) found that the hippocampi of London cab drivers became larger with experience. These brain regions are responsible for spatial navigation, so the finding is consistent with the notion that if you use certain brain regions to carry out a particular task, say, driving a cab in a complex city like London, these regions gain volume. This was, and still is, a remarkable finding since hippocampi typically shrink by age. Evidently, cab driving was sufficient to overcome what appears to be an inevitable neural decline due to aging and then added more.

The brain/mind is far more malleable than the computer metaphor makes it out to be. Cab driving is very specific. But we may only imagine the possible effects on the brain of other tasks within a culture. Broadly speaking, independence and interdependence may be defined by different sets of tasks. If cab driving is sufficient to change the brain, the cultural tasks of independence and interdependence may also be. Such a finding would be an ultimate vindication of the thesis that made our cultural psychology approach so unique in the entire history of the study of culture, namely, that culture is ingrained deeply into the brain (and, thus, into the “mind itself”). I was excited and could not wait to find out.

With a little help from my friends. Right after my Ph.D., while I was at the University of Oregon, Mike Posner—a prominent cognitive psychologist at Oregon—taught me to ask questions that could be solved with the means available. But if you don’t have the means needed, you must get it first. So, in addressing the question above, I wanted to learn the methods and theories of brain science.

I cannot be more thankful to several people who were willing to spend time with me, listening with patience and responding to my questions, many of which, I am afraid, might have been off target. I learned quite a bit from Brian Knutson (an affective neuroscientist at Stanford) about neuroimaging and Dave Amodio (an NYU social neuroscientist) about EEG. Steve Cole and Steve Suomi (at UCLA and NIMH, respectively) taught me how genes might be implicated in culture’s influences on the brain. Back home in Michigan, Israel Liberzon, Carolyn Yoon, and Tony King—three brilliant neuroscientists and psychologists—became my indispensable collaborators in several cultural-genetic-neuroimaging projects. With great talent, intelligence, and

vision, these scholars turned the brain project from something scary and daunting into pure pleasure. All conversations and social occasions I shared with every one of them have since become my enduring intellectual asset.

Cultural neuroscience. This effort has coalesced into a new and ongoing field of inquiry called cultural neuroscience (Kitayama, Varnum, et al., 2018). Indeed, a few tentative conclusions have already begun to emerge. First and foremost, we are finding what might seem obvious and even banal, namely, that the cultural variations we had documented using various measures of judgment, memory, and reaction time have a basis in the brain. We are beginning to find out exactly how cultural processes might interact with the brain to generate the cultural variations in the fundamental attribution error and cognitive dissonance.

Second, we have begun to show that some aspects of brain structure are likely shaped through culture. Building on the London cab driver study, one might anticipate that regions of the brain that are repeatedly engaged by independence or interdependence may increase in volume. For example, the task of personal initiative, involving forming preferences in order to decide what to do, is prominently independent in nature. These cognitive operations are related both closely and uniquely to the frontal regions such as the orbitofrontal cortex and the medial prefrontal cortex. Is it then possible that these regions might be “bigger” for people in independent cultures than for those in interdependent cultures? Moreover, is it possible that the volume of these regions is greater for those who are relatively more independent within each culture? Our initial evidence has shown evidence for these possibilities. Last but not least, are these effects due to cultural influence? Ultimately, it requires long-term intervention

studies to find that out. However, we have addressed this question by relying on a genotype known to predispose its carriers to be more “susceptible” or “sensitive” to environmental influences. If the brain difference across cultural groups is due to cultural influence—a type of environmental influence—then we may expect that cultural variation in regional brain volume to be more pronounced for the carriers than for noncarriers. This prediction has received support (Yu et al., 2018).

Seeking the Middle Way

As a fox, I have explored many topics with colleagues and students, and I have used many different methods, from surveys to behavioral experiments to neuroscience and genetics. However, many of my experiences in graduate school, in conversations with Hazel, and more helped me form a strong conviction that culture is centrally significant in analyzing human psychology at all levels, from neural to behavioral, and all the way up to social and collective. This conviction has served as a framework for understanding social psychology, which greatly appealed to the hedgehog in me. This conviction has since been turned into the mutual constitution framework (Markus & Kitayama, 2010), which is now applied to many other domains, including cultural variation in the susceptibility to the COVID-19 pandemic (Kitayama et al., in press).

Social psychology has transformed throughout the years. I am proud that this field has always been theory-oriented while striving to be thoroughly empirical. It has also been open to new innovative methods. As Editor of the *Journal of Personality and Social Psychology*, I have tried to reinforce this heritage and tradition (Kitayama, 2017). If Hazel and I contributed something worthy of note, that was to extend this tradition and bring culture and diversity into the field’s theoretical framework. One crucial reason why

we could do this, I believe, was that we did strive to be both the fox and the hedgehog simultaneously.

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