The WEIRD Science of Culture, Values, and Behavior

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Values and behavior go hand in hand — while ideals often move us to action, observing the actions and expectations of others can in turn inform our ideals. Values can vary widely across cultures, however, and the question of how those values translate into behavior remains.

“These are age-old questions, and yet continue to provide interest both in the general public and in the research community,” said Qi Wang, a professor of human ecology at Cornell University, during an Integrative Science Symposium at the 2017 International Convention of Psychological Science in Vienna, Austria.

Alongside four experts on human behavior, symposium cochairs Wang and APS Past President Walter Mischel (Columbia University) discussed the social, developmental, and anthropological perspectives on how individual preferences, societal norms, and multiculturalism shape our moral codes.

Between Two Worlds: Culture and Personal Preference

When Chi-yue Chiu, a professor of psychology at the Chinese University of Hong Kong, was pursuing his PhD in social psychology at Columbia University, he focused primarily on how individuals make decisions and influence their reality through their own actions. Since then, Chiu said, his conceptualization of the relationship between values and norms has evolved to account not just for personal choice, but for the unconscious influence of cultural context.

This phenomenon of corruption in Mainland China illustrates the power of unconscious normative influence on decision-making, Chiu said. When asked if they prefer to live in a corrupt society, most Chinese, predictably, said no. When asked how many people would pay a doctor a small sum of money in exchange for higher priority in treatment, however, the same participants said they believed most people in China would do it — and further, most said they would do the same.

“That is against the personal preference of the individual,” Chiu said. “Nobody wants a corrupt society, but they know that if they don’t do it, then they will be disadvantaged, because they expect other people will.”

When there is this kind of discrepancy between personal preference and social norms, people may only follow the cultural law when they feel their behavior is public, he added.

In a study of traffic behavior in Singapore conducted by Chiu and Letty Kwan, for example, analysis of a week’s worth of driving records from 600 city-dwellers found that, on average, even car owners who considered themselves ecologically aware only chose to use public transportation when they were traveling alone. These green impulses, Chiu said, appeared to be snuffed out in the company of others, perhaps due to the shared perception that those who drive are smarter, more educated, and higher class.

Thus far, the efforts of car-clogged cities such as Singapore, Beijing, and Los Angeles to alter citizens' driving habits have borne little fruit, Chiu continued. When Singapore introduced a tax that significantly increased the cost of buying a car, it made driving an even greater symbol of wealth; meanwhile, when Beijing introduced a law allowing a given car to be driven only every other day of the week, commuters simply bought a second vehicle.

"We have tried to solve it using the principles of economics, we have tried to solve it through administrative procedures, and none of them worked," Chiu said.

Perhaps Singapore will become a greener country by incentivizing taxi companies' use of electric cars, he added, but the question of how best to champion individuals' environmentally friendly attitudes over the ecologically destructive norms of their societies still calls for further study.

How Socialization Goals Shape the Brain

While the dominant norms of a society may shape our behavior, children first experience the influence of those cultural values through the attitudes and beliefs of their parents, which can significantly impact their psychological development, said Heidi Keller, a professor of psychology at the University of Osnabrueck, Germany.

Until recently, research within the field of psychology focused mainly on WEIRD (Western, educated, industrialized, rich, and democratic) populations, Keller said, limiting the understanding of the influence of culture on childhood development.

"The WEIRD group represents maximally 5% of the world's population, but probably more than 90% of the researchers and scientists producing the knowledge that is represented in our textbooks work with participants from that particular context," Keller explained.

Keller and colleagues' research on the ecocultural model of development, which accounts for the interaction of socioeconomic and cultural factors throughout a child's upbringing, explores this gap in the research by comparing the caretaking styles of rural and urban families throughout India, Cameroon, and Germany. The experiences of these groups can differ significantly from the WEIRD context, Keller notes, with rural farmers — who make up 30% to 40% of the world's population — tending to live in extended family households while having more children at a younger age after an average of just 7 years of education.

Keller's surveys of mothers, fathers, and grandparents' socialization goals for the children in their immediate family unit found that while families of all backgrounds emphasized the importance of sharing, those from less industrialized parts of India, Cameroon, and Germany expressed primarily hierarchical socialization goals. These included a desire to impress the value of social harmony, obedience, and respect for the elderly on the next generation. Urban Indian and German families, meanwhile, placed greater emphasis on encouraging autonomy through developing personal interests, with families in Germany placing far less value on parent and grandparent authority overall.

These differing priorities were also accompanied by differences in parenting style, with German families exhibiting a preference for distal parenting — that is, interacting face to face with their child (for example

by playing with a mobile or on a gym mat) — and Indian and Cameroonian families engaging in more frequent body contact, or proximal parenting, by keeping the infant with them throughout the day. Keller's observation of children in both groups found that these parenting styles led children down different developmental paths: distal parenting was found to enhance children's self-recognition, while proximal parenting aided social regulation in infants.

To test these findings, Keller and colleague Bettina Lamm (University of Osnabrueck) employed Mischel's famous marshmallow experiment, a measure of self-control in which children are promised two sweets if they can resist eating the first for a short period of time.

While German 4-year-olds struggled to resist temptation, rolling, hitting and even licking the candy in an effort to delay gratification, experimenters in Cameroon had to bang on the door to the exam room at times to prevent drowsier children from falling out of their chairs.

In the end, 70% of Cameroonian children waited patiently to receive their second treat, while less than 30% of German youth managed to do the same. This suggests that early cognitive differences can significantly influence behavior as children age, Keller said.

"The socialization goals of the [Cameroonian] families, the values — to be obedient and to respect what the elderly tell you to do — is so much higher that they can wait," she explained.

The psychological mechanisms responsible for children's development appear to be universal, she continued. Rather, it is the cultural emphasis on autonomous and hierarchical socialization goals that seem to result in this divergence in cognitive abilities and behavior.

Interdependent in an Independent World

Quick — your house is on fire. In one room, your mother. In the other, your spouse. You only have time to save one person — what do you do?

According to APS Fellow Hazel R. Markus, a professor of psychology at Stanford University, participants' answers to this seemingly impossible thought experiment often depended on which country the burning house was built in.

"The Americans, in the large majority, say they would save their spouse because their spouse was their choice, and is, of course, the parent of their children," said Markus, reporting a study by Tsui-feng Wu, Susan Cross, and Chih-Wen Wu.

The majority of Taiwanese respondents, on the other hand, said they would prioritize their mother's life.

"It's obvious from the ideas and practices of filial piety that pervade the society," Markus explained. "Mothers give you life, you're fundamentally connected to your mother, you begin with her. You have only one mother, you can get another spouse."

Understanding the reasons for this cultural disconnect requires an awareness of how interdependent societies, which emphasize relationality and a pervading awareness and responsiveness to others,

operate. While individuality and personal choice are valued highly in independent-minded cultures, this is far less common outside of the WEIRD context, even within the United States, Markus notes.

People require both independent and interdependent selves to accomplish the tasks of being human, but most have more experience with one way of being than the other. Women, people of color, and working class individuals, people under threat and those with less power in a given context are all more likely to have more practice and familiarity with behaving interdependently, Markus said, yet the majority of research still neglects interdependent agency— she refers to this blind spot as psychological science's "fundamental attribution error."

"Psychological science … is still dominated by a focus on individual preferences, goals, motives, and attributes as the primary drivers of behavior and as a field we are still much less tuned in to obligations toward others — the expectations and attitudes of others, to the power of norms and to other-regulation as drivers of behavior," Markus said.

This cultural bias against interdependence permeates the United States' educational and criminal justice systems. Independent agency is strong, valued, and scaffolded. Interdependent agency, on the other hand, is often dismissed as "weak" and "deficient," and sometimes vilified as "nepotism," "cronyism," or "immorality" in a Western context, Markus said, but these patterns of behavior can have many normatively positive outcomes in environments that emphasize interdependence.

First-generation college students, for example, have been found to earn lower grades, have higher dropout rates, and to make fewer friends on average despite meeting the same entrance requirements as their continuing-generation peers. Most universities are "saturated" with independence, Markus noted. While WEIRD students may view college as a time for personal exploration, those from interdependent working class backgrounds — which tend to emphasize fitting in, observing hierarchy, and tradition — are faced with a cultural mismatch.

To ease this transition, Markus described several brief intervention studies that outlined the opportunities for interdependence on campus. One year later, first-generation students who participated in these interventions got better grades and were more integrated into university communities through close friendships, mentorships, and extracurricular activities than those who did not.

"We were encouraged by some simple tweaks that would allow universities to present themselves as places where students who are relatively more familiar and practiced with interdependence could feel comfortable," Markus said. "If we're going to engage in instigating cultural change, or making a positive difference, we need to recognize and accommodate for interdependent agency."

Sacred Values and Identity Fusion

It can be difficult to conceive of how an individual could come to condone, much less commit, the kind of mass violence encapsulated by events like the 2015 Paris attack or 9/11. There is a tendency, particularly among the parents of Western perpetrators, to depict the attackers as "brainwashed" or completely nihilistic, convinced that life holds no meaning, but that is not the case, said Scott Atran, a professor of anthropology at the University of Oxford and the University of Michigan.

“In fact the opposite is generally the case. They’re often very deeply moral people, just as many National Socialists were. They actually believe in what they’re doing, just as any truly revolutionary group does,” Atran explained. “Their claim is they’re doing it because Western society is nihilistic: ‘They have no more rules, they have no more red lines, even for deciding who is a man or a woman.’”

Despite its reliance on violent terrorism, Atran, cofounder of ARTIS International and the Centre for the Resolution of Intractable Conflict at Oxford, said he considers the Islamic State a “classic revolution,” much like the Bolsheviks.

“History will only judge it a ‘terrorist’ group in the long run if it fails in the short term,” he said.

The attacks on civilian targets are designed, he explained, to “eliminate the gray zone between infidels and true believers in which most of humanity lives, including other Muslims,” forcing people to take a stand either for or against the Islamic State’s otherwise indefensible actions.

“I don’t like the word ‘terrorism.’ It’s mostly just a method, of hitting ‘soft’ undefended civilian targets to undermine people’s faith in government’s basic responsibility to provide security” he said. “Without a claim to moral virtue, it’s almost inconceivable to wish mass murder or to kill thousands innocent, of wanting to harm others.”

The kind of unyielding conflict present in the Middle East is best understood through a “devoted actor framework” that integrates research on nonnegotiable “sacred values” and identity fusion, a visceral sense of oneness and invulnerability within a group, Atran said. During his interviews with ISIS and al-Qaeda fighters on the frontlines in Mosul, Iraq, Atran presented them with a series of tasks intended to measure their perceptions and values.

In one case, participating fighters were asked to rate both the United States’ and the Islamic State’s physical and spiritual strength by manipulating the scale of personified versions of the American and ISIS flags. Fighters identified the US as a physically formidable, but spiritually middling, opponent, while portraying their own organizations as relying almost entirely on spiritual might.

The sacred values these fighters referred to are distinguishable from everyday morality, Atran said, in that they are immune to material tradeoffs, they blind believers to potential exit strategies, motivate them to abandon their families, and generate action independent of prospects for success. His team’s brain scans of supporters of Lashkar-e-Taiba, an Al-Qaeda affiliate in Pakistan, have found that a willingness to fight and die for these beliefs is accompanied by a lessening of activity in areas of the brain associated with utilitarian reasoning in favor of rapid rule-bound responses.

“Civilizations rise and fall on cultural ideas, not materials assets alone, and most societies have sacred values for which their people would be willing to commit that ultimate measure of devotion,” Atran said.

Unlike mundane values, he added, sacred values are, for the most part, logically absurd and empirically unverifiable, imbuing them with a transcendental quality that can’t be rejected through reasoned debate. This is true for religious ideas like those that motivate the Islamic State, as well as for secular transcendental ideologies, like those that motivate the Marxist-Leninist Kurds of the Kurdish PKK, he

continued.

“I think one of the biggest mistakes in public diplomacy is the idea that you’re going to have counter-narratives and somehow this is going to oppose the ideology of jihadism,” he explained. “It’s much more important to be
counter-engaged in working with the particular interdependent social networks that give life to ideas, of these actors themselves. Resistance to the spread of noxious ideas is built within a community of interdependent social networks.”

Recruitment by the Islamic State, like Al Qaeda, “still relies most heavily on penetrating into pre-existing social networks of friends, family, and fellow travelers” throughout the radicalization process. Women also play a key role, supporting these networks “completely under the radar,” and operating — intentionally or not — as central connectors and social bridges in radical networks without ever interacting with the criminal justice system.

While Atran said he views the defeat of the Islamic State as strategically inevitable, he stressed that the symptoms that led to the rise of the Islamic State, as well as the populist movements emerging throughout Europe and the United States, aren’t going to disappear on their own.

“The great majority of the world has been left in the lurch, their longstanding traditions having collapsed in the forced gamble of global market competition. They’re on the dark side of globalization,” Atran said. “Above all, what is needed is a transcendent message and meaning that gives individual existence significance beyond death, binds people together beyond perceived self-interest, and creates enduring and peaceful progress toward a common good.”œ

-Kim Armstrong