



13

Re-envisioning Intelligence in Cultural Context

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The search to understand the construct of “intelligence” has been a long journey as evidenced by the immense literature base that has been generated over decades. Numerous forms of intelligence have evolved over the years including cognitive, academic, successful, spiritual, interpersonal, intrapersonal, social, cultural, artificial, emotional, adaptive, practical, etc. Spearman’s (1927) statement that, “In truth, ‘intelligence’ has become a mere vocal sound, a word with so many meanings that finally it has none” (p. 14) may be gaining even more traction today. In our discussions of culture and intelligence our discourse is often tied intimately to issues of race and ethnicity while acknowledging that culture impacts the

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measurement of intelligence, the operationalization of intelligence has been based upon what is valued and reinforced in mainstream American culture. Indeed, all psychological measures reflect what is valued within the cultural contexts in which they were developed. Our chapter will introduce major theoretical frameworks that have shaped how we understand intelligence globally, as well as present an argument that intelligence is a cultural creation that has disadvantaged Black indigenous people of color (BIPOC) communities.

The advent of intelligence tests served to anchor the construct of intelligence, as these tests were used to operationalize the definition of intelligence in the format of items with one correct answer (Jaarsveld & Lachmann, 2017). Traditional theories of intelligence, such as the General Intelligence Theory (Spearman, 1904), conceptualized the construct as a fixed and hereditary trait that is closely related to how well one performs on various cognitive tasks. Similarly, the standardized intelligence (IQ) tests developed around the same period (Binet & Simon, 1916) aimed to assess particular cognitive and intellectual abilities to determine how smart a person is. These standardized IQ tests were widely used and promoted as one of the significant inventions of American psychology (Benson, 2003). However, the traditional definition of intelligence and its measurement has also been one of the most controversial topics in the social sciences as they raised questions regarding bias and unfair usage regarding race, socioeconomic status, gender, and culture.

In addition to the well-established historical context of the field of intelligence testing, there has been research and scholarship that offered reductive perspectives of specific groups of people. One of these examples dates back to 1969 and includes the use of intelligence tests in the classification of students of color:

We now have what may be called a 6-hour retarded child -- retarded from 9 to 3, five days a week, solely on the basis of an IQ score, without regard to [their] adaptive behavior, which may be exceptionally adaptive to their situation and community in which [they] live (President's Committee on Mental Retardation, 1969, n.p.)

The search to address racial group differences on intelligence tests led to the attempts to adapt and modify measures including the System of Multicultural Pluralistic Assessment (SOMPA; Mercer & Lewis, 1978); the biocultural model of intelligence (Armour-Thomas & GoPaul-McNicol, 1998), the Revised SAT (Freedle, 2003) and the Cross-Battery Assessment Model's (XBA; Flanagan et al., 2007) Culture-Language Test Classifications (C-LTC) and the Culture-Language Interpretive Matrix (C-LIM). Each of these assessment models promoted the adjustment of scores on intelligence measures taking into consideration factors such as degree of cultural loading, linguistic demand, and other contextual background factors. Unfortunately, these efforts were challenged and findings regarding their application did not appear to support the hypothesized goals and ultimately did not lead to change in the current use of intelligence measures.

Scholars critiquing the use of intelligence tests have noted that they are culturally loaded based upon dominant Western ideals (Croizet, 2011; Gould, 2014). Consistent findings support the racial-ethnic group hierarchy of Full Scale IQ (FSIQ) scores (i.e., Whites scoring at the mean of 100, Blacks one standard deviation below; Latinxs, Native Americans somewhere in between, and Asians scoring relatively higher on performance abilities than verbal) have been found consistently throughout studies of intelligence. Needless to say, this research has supported the perception that particular racial and ethnic groups are less “smart” than others based upon measures of full-scale IQ. Further challenges regarding flaws in sampling methodology and research design (Eberhardt, 2020; Gillborn, 2016; Gould, 2014) have been noted but the heated politicized debates between those with an environmental/cultural perspective versus those emphasizing hereditarianism continue:

The repeated assertions that the negative reception of research asserting average Black inferiority is due to total ideological control over the academy by ‘environmentalists,’ leftists, Marxists, or ‘thugs’ are unwarranted character assassinations on those engaged in legitimate and valuable scholarly criticism. (Jackson & Winston, 2020, p. 3)

Opposing scholars (Crenshaw, 1990; Croizet, 2011; Eberhardt, 2020) representing a racial justice perspective note that misuse of intelligence tests have resulted in direct forms of oppression impacting communities of color.

Aptitude tests like the GRE and SAT have played a major role in the admissions process for educational institutions, specifically, determining which candidates are more likely to be successful in their academic trajectory. As funding resources in academia have become more limited over time, standardized testing has served as means of gatekeeping admissions and consequently limiting opportunities for Black, Indigenous People of Color (BIPOC). Usage of these aptitude tests led to controversies over the years due to their contributions to the inequities in admissions processes, concerns regarding access to test preparation programs promising increases in test scores to the members of more affluent communities, cheating scandals, etc.

In the face of the pandemic, a number of schools moved to being test-optional, spurring a number of publications indicating the impact of these measures on members of BIPOC communities. In addition to the work of racial justice movements and critical discourse underscoring the disparities in testing outcomes and role in admissions processes, the COVID-19 pandemic has also shed light on systemic disparities in admissions procedures, including usage of aptitude tests. Many standardized measures like the GRE have been challenged as giving greater advantage to students from White, neurotypical, higher socioeconomic groups, and online administrations are noted to disadvantage applicants from rural and low-income backgrounds (De Los Reyes & Udder, 2021). Low GRE-Q scores have disproportionately served as a barrier for admissions into psychology graduate programs for underrepresented minorities leading to a call for more equitable admission procedures (Gómez et al., 2021).

The societal and political landscapes have changed in dramatic ways during the pandemic and acts of domestic terrorism have increased, as well as racist attacks against people of color. The Senior Editor, *Special Collectors Edition*, perhaps best summed it up in the introduction to the *Scientific American* entitled “The Science of Overcoming Racism: What Research Shows and Experts Say About Creating a More Just and Equitable World.”

institutional racism, not race, has made people of color more than twice as likely to die from COVID-19...Black children and other minorities are disproportionately born into poverty and thus incur more health risks throughout their lives...Black people are about three times more likely than white people to be killed by law enforcement...People of color are more likely to suffer the consequences of a degraded and plundered environment...Those with power benefit from exploiting the natural world, but it's the poorest among us who bear the impacts. (Gawrylewski, 2021, p.1)

In 2020, Academics for Black Survival (A4BL) launched by founders Bellamy and Mosley brought together over 10,000 participants from around the world to address anti-Black racism in their personal lives and the academy. There is a clarion call for change, and it is against this contextual backdrop that we write this chapter.

The goals of this chapter are not to reiterate past arguments but rather to focus on thinking about how culture (broadly defined) has led to our understanding the ways in which intelligence is defined and measured. More importantly, given the current sociopolitical context and demand for critical pedagogy, we aim to examine how identity-based inequities are inextricably intertwined with our understanding of intelligence and intelligence testing.

Culture and Intelligence Testing

Numerous studies have attested to the impact of culture on measures of intelligence, answering affirmatively the question that cultures reinforce particular forms of ability. Therefore, cultural values, beliefs, attitudes, rituals, customs, communication styles, norms, as well as social and environmental conditions, impact the understanding of intelligence in diverse communities. Some cultures reinforce and value social aspects of intelligence—social responsibility, social constructive dispositions, wisdom, trustworthiness while others focus on aptitude, educational qualifications, and abilities to problem-solve that are more commensurate with traditional mainstream definitions (Dixon et al., 2016). While we speak

in this chapter to differences between cultural groups, we recognize that there are variations within cultural communities that must also be recognized in our understanding of intelligence.

Theoretical Definitions of Intelligence

After the controversial publication of *The Bell Curve: Intelligence and Class Structure in American Life* (Herrnstein & Murray, 1994), 52 scholars and researchers with expertise on intelligence and in other allied fields endorsed the following definition in an editorial in *The Wall Street Journal*:

Intelligence is a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. (Gottfredson, 1997, n.p.)

While acknowledging that people of all racial-ethnic groups can be found at every IQ “level,” the article notes that the bell curve for whites centers around 100, bell curve for Blacks at 85 and those of Hispanics somewhere in between.

Given the preceding discussion of how culture reinforces particular forms of ability, aspects of this definition reflect what is valued in mainstream U.S. culture—for example, speed and advanced planning and reasoning to arrive at the correct answer. However, the *Merriam-Webster Dictionary* (<https://www.merriam-webster.com/dictionary/intelligence>) adds to this definition aspects of survival and adaptability to deal with new and challenging situations; to apply knowledge and manipulate the environment; to perform computer functions; and to ascertain information regarding a possible threat from an enemy. Broadening our understanding of intelligence is clearly reflected in the literature highlighting various forms of intelligence beyond what has been measured by traditional tests. We provide brief descriptions of these forms highlighting cultural linkages.

Multiple Intelligences

The Multiple Intelligence Theory (MI) of Dr. Howard Gardner (1983) was one of the earliest theories that challenged the cognitive-based view of intelligence that emphasized the hereditary and fixed nature of the concept. Gardner defined intelligence as the “biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (Gardner & Moran, 2006). The MI theory proposed eight types of intelligences, including logical-mathematical, musical, interpersonal, intrapersonal, and naturalistic intelligence, and posited that a person who is high on one intelligence could be low on another. Interpersonal intelligence has similarities with social intelligence, a concept introduced in 1920 by Edward Thorndike and that has been defined as the ability to understand other people and “act wisely in human relations” (Thorndike, 1920). On the other hand, intrapersonal intelligence resembles emotional intelligence, which focuses on the importance of understanding and regulating one’s emotions and using them as guidance for actions (Salovey & Mayer, 1990).

By moving away from defining intelligence as a merely cognitive and intellectual trait, MI theory acknowledged, at least to an extent, the absurdity of labeling someone as “unintelligent” by looking merely at their standardized IQ scores. As previously mentioned, intellectual skills such as performing rapidly on cognitively demanding tasks, grasping novel and complex concepts, or working with abstract ideas may not be socially meaningful in all cultural contexts. Thus, recognizing types of intelligences, such as interpersonal, and/or bodily kinesthetic intelligence, can be considered as a step toward evaluating people in the context of their own environment and culture, yet it is far from perfect.

The MI theory has been criticized for defining intelligence in a way that ignores the types of intelligent behaviors valued and reinforced outside of the Western educational settings and, by doing so, upholds existing societal, economic, and educational structures that discriminate toward marginalized communities (Berry, 2004). Berry suggested that the MI model also maintains the status quo and perpetuates social

injustices by leading the students with more intelligence types toward leadership roles by allowing them to have access to more resources and eventually enabling them to hold more power and influence over those with fewer types of intelligence. Despite its popularity, MI theory has been criticized for lack of empirical support in part due to measurement difficulties (Waterhouse, 2006).

Successful Intelligence

Sternberg (1997) defined successful intelligence as one's ability to identify meaningful goals given their disposition, skills, and sociocultural context and move toward those goals by amplifying their strengths while compensating for their weaknesses (Sternberg, 2011). Sternberg posits that successful intelligent people use a combination of analytical, creative, and practical abilities to move toward their goals. According to his theory, successful intelligent individuals are good at adapting to their environment, taking effective steps to shape their environment according to their needs, and moving on to other environments when the current one is not aligned with their goals. Successful intelligence theory rejects the notion that intelligence is an innate and fixed cognitive trait that can be fully captured with a standardized IQ test. Instead, the theory emphasizes that what intelligence means can change significantly depending on sociocultural context.

Emphasizing the impact of culture and recognizing the uniqueness of individuals is a step toward the right direction for formulating a culturally competent definition of intelligence. However, framing individual goal setting as the ultimate indication of intelligence can be interpreted as a Western-centered perspective. Setting personal goals and moving toward them “without letting anyone or anything get in the way” might not be applicable in more collectivistic societies (e.g., Latinx or Asian communities) in which upholding the community's goals over pursuing personal desires is cherished. Moreover, maintaining momentum to achieve one's personal goals requires a certain degree of privilege. Individuals with multiple intersecting marginalized identities might need to constantly alter, suspend, or even permanently put aside their personal

goals as they often have limited resources to cope with unexpected life changes such as losing a job, having a sick family member, or experiencing a global pandemic.

Cultural Intelligence

Cultural intelligence refers to one's ability to adapt effectively to new cultural contexts (Earley & Ang, 2003). This form of intelligence requires an individual to go beyond what would constitute their "normal" cultural cues as what they know about social interactions (norms and practices) are no longer clear or known. Cultural intelligence requires motivation, capability, intention, and action. Earley and Ang (2003) note that culturally intelligent behavior results from the interaction between cognitive (direction), motivational (adaptation), and behavioral (criticism). All of these are required to be viewed as culturally intelligent.

Thomas (2017) emphasizes the importance of being knowledgeable, skilled, and flexible. Culturally intelligent people are those that have knowledge about what a culture is, how they can potentially vary, and how culture can impact behavior. This is a complex process given that the ways in which a culture operates are often invisible. Being mindful of one's own knowledge and feelings is key as the individual must be attentive and sensitive to cues embedded in encountered situations. Based upon knowledge and mindfulness, cross-cultural skills and understandings can be achieved and a repertoire of potentially appropriate behaviors can be developed to address the needs and demands of varying intercultural interactions.

Cultural intelligence broadens the range of our understanding of intelligence to a global perspective. Being able to interact in a global society is a fundamental requirement (Thomas, 2017). This is reflected in the development of international competencies in psychology, emphasizing the critical importance of "cultural intelligence, language proficiency, cognitive complexity and flexibility, and highly developed interpersonal communication skills" in providing globally linked services both in person and through social media and other online resources (Inman et al., 2019, p. 630).

Emotional Intelligence

This form of intelligence has been defined as “the ability to accurately identify and express emotions, the ability to generate emotions and use them to help you think, the ability to understand emotions and their causes, and the ability to manage emotions so that they inform your decision making” (Caruso, 2008, p. 7). Emotional intelligence has gained international popularity over the years and measures of this construct have been translated into new languages, renormed, and revalidated in different countries. Understanding this concept has implications for one’s personality, quality of life, leadership skills, employment, and social relationships in similar ways as it has been associated with cultural intelligence.

In a review by Ekermans (2009) examining research on emotional intelligence in different cultural contexts, the author provides insight into how cultures may differ, on average, in emotional regulation, emotional expression, and emotional regulation. The author concludes these differences may be the result of varying cultural value dimensions that define appropriate adaptive emotionally intelligent behaviors. For example, Ekermans (2009) notes differences between individualistic and collectivistic cultures in terms of emotional expression and display rules. Collectivistic cultures emphasize maintaining harmony and promotion of overall group welfare over individual gain. Therefore, conflict-inducing behaviors are reduced. In comparison, individualistic cultures pose fewer constraints regarding emotional expression as the focus is on self-gain for the individual. Emotional display rules impact emotional regulation and are learned through reinforcement of social and cultural norms.

Spiritual Intelligence

Though there is debate as to whether spiritual intelligence is a unique form of intelligence, we include mention of work in this area given the importance that spirituality has played in indigenous cultures and the critical role it can play in understanding intersectionality. Like other forms of intelligence examined above, spiritual intelligence has been shaped by several factors, including colonialism and secularism, as well as religious ideology. Certain forms of spirituality (i.e., indigenous, African,

etc.) remain marginalized and in some cases erroneously perceived as unevolved—that is, ancestor worship, religious offerings, sacrifices, etc. Given that these dynamics and social hierarchies remain ever-present in society and within the scientific community, the field of psychology has not endorsed spiritual intelligence as a unique type of intelligence (Skrzypińska, 2020). While debates continue regarding whether spiritual intelligence meets the criteria of a unique form of intelligence, we include a brief description here as it serves to inform our understanding of the range of intelligences with potential ties to our discussion of culture. Emmons (2000) highlighted characteristics of spiritual intelligence in terms of five components (p. 3):

- the capacity for transcendence (going beyond our ordinary limitations; beyond the physical);
- the ability to enter into heightened spiritual states of consciousness;
- the ability to invest everyday activities, events, and relationships with a sense of the sacredness;
- the ability to utilize spiritual resources to solve problems in living; and
- the capacity to engage in virtuous behavior (to show forgiveness, to express gratitude, to be humble, to display compassion).

Only the first four of the above components were eventually retained, given the hypothesized overlap for the last component with ethics and personality.

According to Emmons (2000), spiritual intelligence is tied to goal setting and attainment and is tied to the adaptive use of spiritual information to problem-solve and discover the meaning of life. Similarly, adaptiveness in combination with other attributes involves the coordination of multiple goals to reach higher order principles. Spiritual formation involves obtaining a knowledge base regarding that which is considered sacred. In some cultures, the study of sacred texts and commitment to the practice of spiritual exercise leads to an increase and refinement in spiritual knowledge. Religion often focuses on specific beliefs and organizational structures and practices making it distinct from our discussion of spirituality. Emmons (2000) further indicates that abilities and competencies related to spiritual intelligence are valued

differently, depending on culture. For example, he cites the work of Yang and Sternberg (1997), who found that Taoist and Confucianist Chinese cultures value character virtues to definitions of intelligence in Western societies. “Tethering spirituality and intelligence enables an acknowledgement of and deeper appreciation for spiritual and religious ways of knowing that might be highly prized in certain cultures” (Emmons, 2000, p.21).

Skrzypińska (2020) notes that the historical backgrounds and traditions of societies provide examples of the creation of spiritual languages of believers, numerology, spiritual graphics, and special music representing expressions of spirituality. Spiritual intelligence in combination with emotional intelligence is hypothesized to create a sense of well-being and satisfaction, humility, benevolence, wisdom, and morality.

Artificial Intelligence

Technological advancements have changed the cultural landscape on a global scale. This is clearly evident in the face of the worldwide pandemic with unprecedented impact on all areas of society, increasing our reliance on technology to maintain educational, medical, social, religious, and other systems moving as we hunkered down, unable to continue to work in-person. To do our work remotely, this involved providing hardware and software to all students and frontline workers. Automatization of food delivery, remote classrooms, online medical appointments are but a few examples of how our world has changed. We cannot deny the disparities in access to resources provided to marginalized and oppressed groups around the world (<https://ourworldindata.org/global-economic-inequality>). Hence, we include attention to artificial intelligence as these modalities and strategies have changed our culture and indeed our sense of what intelligence is and could be.

The aim of artificial intelligence is to simulate the intelligence of a human being through a computer and to make a decision that is similar to learning to a certain extent, to create a strategy of choice. Artificial intelligence generally consists of methods that aim to model the thinking systems of humans, the model/mode of work of the brain or the biological evolution of nature. (Uğur & Kurubacak, 2019, p. 2)

This definition is limited given that AI optimization models have moved beyond what can be accomplished by expert systems thereby no longer modeling human thinking but going far beyond (Teich, 2018). Techniques associated with artificial intelligence include: knowledge-based expert system approach, artificial neural networks approach, a fuzzy-logic approach, non-traditional optimization techniques, hybrid algorithms, geographic information systems, and improvement of decision support systems. Because of these advances, “cultural transformation has been initiated with the shaping power of advances in technology, media and communication” (Uğur & Kurubacak, 2019, p. 4). A cyber culture has emerged worldwide, providing computer networks for communication, entertainment, and business. The authors note that transhumanist culture is based upon technologies that have developed based upon personkind’s “desire to dominate nature” (p. 6). These include developments as simple as reading glasses, robot hands, prosthetic legs, eye-tracking devices. Transhuman technologies will become integrated into everyday life and like the cultural linkage to intelligence will surround us but be unobservable. “Transhumanism, which plays a critical role in the development of the personal self, will have a critical importance in changing the social identity and cultural structure of the societies of individuals” (p. 6).

Artificial intelligence enables us to accumulate massive amounts of data to discover underlying patterns leading to predictions of future events and behaviors (Caramiaux, 2020).

In this context, AI is often erroneously considered neutral as it appears to be no more than a set of sophisticated optimization mechanisms used to achieve a task, e.g. classifying images, generating sounds or texts, with the best performance. However, AI builds on data that capture socio-cultural expressions represented by music, videos, images, text, and social interactions, and then makes predictions based on these profoundly non-neutral and context-specific data...A human-centric perspective on AI should embrace cultural diversity and should support human creativity, critical discourses, and artistic idiosyncrasies. (<https://research4committees.blog/2020/09/07/the-use-of-artificial-intelligence-in-the-cultural-and-creative-sectors/>)

Caramiaux expresses caution that the cultural implications of artificial intelligence must be addressed in the development of public discourse and policies.

Adaptive Intelligence

Given that adaptive intelligence is highlighted in other sections of this text, we provide only a brief description of adaptive intelligence as it relates to culture. Sternberg (Sternberg, 2021a, 2021b) provides a critique of current intelligence measures and theories in his innovative transition to adaptive intelligence. Acknowledging the cultural imperialism embedded in the intelligence testing movement, Sternberg identifies race as the “red herring” in intelligence research and that tests represented Western cultural values.

As humankind faces global crises what is needed is an intelligence that supports adaptation to a rapidly changing environment. This requires abilities not represented in traditional intelligence measures. As noted earlier in this chapter, IQ tests, and other standardized achievement tests like the SATs and GREs are viewed by the public as measuring something that is highly meaningful and has a great deal to do with opportunities that will be available in the future. Adaptively intelligent people are able to see the implications of their behavior in the long term and take action for the good of the group rather than individual gain.

The assumptions underlying adaptive intelligence resonate with a cultural re-envisioning of intelligence.

Future Directions: Moving Toward the Next Definition

As we discussed the various ways intelligence has been conceptualized and measured since the early twentieth century, we pointed out that many theories and definitions of intelligence failed to pay close attention to the experiences, cultures, and values of BIPOC communities. Instead, most approaches are primarily aligned with the values and worldviews of

predominantly white, Western, middle-class, Christian individuals. This section will focus on the aspects of intelligences held by marginalized and oppressed individuals. These are not often well-examined and nor measured in the intelligence literature.

Racial socialization relates to intelligence as evidenced by parents or other caretakers teaching BIPOC children about their race and ethnicity with the hope of preparing them to recognize, navigate, and survive microaggressions and discriminations (Neblett et al., 2010). In essence, to adapt and survive in a racist society, BIPOC communities are directly impacted by microaggressions, discriminatory actions, over-policing, and biased perceptions about their behavior as aggressive or inherently hostile (Denworth, 2021; Oreskes, 2021; Sue, 2021). Thus, being aware of potential threats at all times, avoiding certain situations, and code-switching across social settings (i.e., changing voice tone, vocabulary, and body language) play a critical role in BIPOC individuals' survival. They can also be an indication of their social astuteness and an in-depth understanding of how to navigate social hierarchies.

In a study, Carrillo (2013) interviewed three Latinx men who have graduate degrees about their experiences, as working-class Latinx men are historically not regarded as intelligent and not expected to succeed in Western educational settings. By doing so, Carrillo aimed to identify the type of intelligence these men had to develop to survive in White-dominated academic environments. He concluded that the kind of intelligence these men held was reflected in their struggles of constantly navigating and adapting to the power dynamics within academia to keep doing meaningful work and getting their message across while maintaining their sense of identity and not feeling like a "sell-out." This was a type of intelligence that their White classmates did not need to survive in academia. While these examples focus on the academic context, there are other examples of survival behaviors engaged in by BIPOC communities presented by Carrillo. He mentions immigrant Latinx children acting as "cultural brokers" to help their parents navigate their interactions in U.S. society and Latinx students from low-SES families constantly maintaining an additional level of consciousness to make sense and work through the contradictions and ambivalences they experience in their everyday lives.

We can also talk about intelligence related to BIPOC communities by examining how their historically marginalized, oppressed, and ridiculed aspects of cultures have become a valued part of mainstream society. The aspects of BIPOC communities' cultures, including but not limited to their values, clothes, hairstyles, foods, music, and rituals, have been labeled as "primitive" and regarded as proof of their "intellectual inferiority." However, today, many aspects of people of color's culture are being integrated and promoted for money-making and entertainment purposes. For instance, many Western clothing companies profit from using patterns, shapes, and colors on their products belonging to Native-American culture. Other examples may be seen in terms of the growing popularity of Yoga, Hip Hop, and meditation. Credit to the originators of these particular indigenous practices is often not acknowledged and no attention is given to their cultural significance.

Numerous authors have called for the recognition and integration of the "voices" of members of diverse cultural communities in understanding intelligence as a holistic construct. In the past this has meant administering intelligence tests in diverse communities. Here we are speaking about gaining an understanding of what is important and reinforced within a cultural community. Therefore, the format and content of an intelligence measure must be organically derived based upon this understanding. Further, awareness and knowledge of intersectional identities increases the complexity of our work as culture is not just related to race, ethnicity, and country of origin but also identities of social class, disability status, gender identity, etc.

Given our understanding of the various forms of intelligence and their linkage to cultural adaptability and survival, we equate intelligence to one's ability to live a life where they move toward goals that are meaningful for them (i.e., successful intelligence, adaptive intelligence). With the world changing rapidly, the same set of skills, habits, attitudes, and behavior that enabled people to move toward their goals two years ago would probably require at least some degree of modification to keep working today. The question then becomes: *What are the characteristics of people who manage to adapt to the ever-changing "next normal" and keep moving forward in the midst of this chaos?* We must also acknowledge the

role of environmental factors, birth, and just pure luck as these play a role in survival and in creating the conditions under which an individual and/or community must adapt (Sternberg, 2021a, 2021b). More importantly, we must recognize that the same methods that led the field of psychology to promote biased and racist ideologies will likely continue to do so unless significant change takes place (Winston, 2020).

The Next Normal on Intelligence

The formulation of theories of intelligence, creation of intelligence tests, and allowance of these tests to create a reality of disparities between different cultural communities can be viewed through the lens of the Anthropocene epoch—that is, an example of humankind’s attempt to define and control that which occurs in nature. While we want to recognize the contributions of scholars who developed a research agenda addressing what it means to be “smart” in our society we also must ask: *How can a construct so laden with controversies and challenges in BIPOC communities become viewed as the major contribution of a profession (i.e., psychology)? How can we mitigate further harm to BIPOC communities and reduce disparities?* These are questions being asked in mainstream communities and the lay public as noted in the 2021 Special Edition of the *Scientific American* entitled: “The Science of Overcoming Racism: What Research Shows and Experts Say About Creating a More Just and Equitable World.”

Intelligence tests have been a major export for testing companies as they are translated, renormed, and restandardized in many countries and considered the gold standard of the psychometric movement. These measures have reified the construct of intelligence that has led to worldwide application, despite concerns regarding their usage in BIPOC communities (e.g., Suzuki et al., 2011).

The Anthropocene epoch challenges us to think about how our culturally biased view of the world and attempts to survive and adapt to the environment have led to changes in nature that we find ourselves now unable to control (Sternberg, 2021a, 2021b). Global climate change,

immigration, xenophobia, civil and ethnic conflict, pollution, policing, and the COVID pandemic have disproportionately impacted BIPOC communities (Boyce, 2021). That ultimately, our efforts are futile given the forces of nature Gaea once supported the development of humanity but is now demonstrating her ultimate control as she protects the earth. Members of indigenous cultures (e.g., Native Americans and Hawaiians) recognized their role in the world as being the caretakers of the Earth rather than adopting the goal of gaining mastery over nature. The challenges facing our society are great and will require intelligent people broadly defined and groups to alleviate problems for all communities.

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