

# Brain-Based Leadership: What's Missing?

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*What are the value and limits of current neuroscience-based approaches to inclusion and diversity?*

Approaches to leadership based on neuroscience are alluring. Advances in functional magnetic resonance imaging (fMRI) have provided an exciting new window into the everyday workings of the brain. Consultants and coaches eagerly cite the latest neuroscience research as the basis for their leadership advice, focusing on how it can be applied to vital tasks such as driving a successful change initiative.

And what could be a more common human asset than the brain, with its magnificent synapses and plasticity as well as its flaws?

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Numerous costly failures, including cross-border acquisitions, change initiatives, and rollouts of well-intended inclusion and diversity efforts can be traced to cultural blindness.

Brain-based leadership development seems sensible, scientific, and compelling, with the potential for global applications that bridge pesky nuances, paradoxes, and differences.



## What could possibly be missing?

Before jumping on this popular bandwagon, let's explore factors that comprise a full human being and contribute to successful leadership. Here's an example:

*Albert Farnsworth was a fast-rising leader from the UK assigned to run a firm in Hong Kong that his company had recently acquired. Confident in his prior leadership track record, primarily from his work in northern Europe, and armed with the advice of a U.K.-based coach informed by neuroscience research, he developed a plan for integrating the new acquisition.*

*Albert sought to reduce status threats related to the acquisition by demonstrating respect for the status of the firm's previous leaders. He preserved their titles, assigning to himself the newly-coined title of managing director. In his usual egalitarian style, he frequently asked local managers and employees for their input on key decisions, with brainstorming sessions designed to draw out their ideas. He sought to preserve employees' sense of autonomy and certainty by establishing broad goals for the organization and then giving them room to create their own solutions—this was a leadership style that had worked well for him in the past and had been a key part of his own success story to date. He also began to introduce them to their new matrix counterparts around the world, stressing how the new parent company's relatively flat hierarchy enabled the best ideas to move quickly between regions.*

*Unfortunately, the plan did not generate the results that Albert had anticipated. Both sales and morale began to drop, his team brainstorming sessions seemed to go nowhere, and soon key junior employees began leaving the firm, hired away by local companies. When Albert asked his local HR manager for results from employee exit interviews, he was unpleasantly surprised by the criticisms of his own leadership, expressed in comments such as the following:*

- *“We don't know who the boss is anymore. Our previous leaders didn't perform well and that is why they had to sell the company. Now they are stuck in the middle between us and Albert, and don't know what to do.”*
- *“Albert is always asking for our opinions, which makes us think that he doesn't know what he is doing and is a weak leader.”*

- *“He seems to delegate and disappear. We want someone we can bring problems to and then solve them together.”*
- *“We want more change and faster. The market is moving very rapidly here, and the new boss should fire older managers who can’t keep up.”*

Albert’s primary failing and one that almost derailed his career was his attempt to replicate his prior success by using the same leadership style in a different cultural environment. In this case, his application of neuroscience to address the importance of status issues during the ownership transition contributed to overconfidence in his plan and actually reinforced his cultural blindness rather than providing him with contextually appropriate leadership strategies.

## Brain-Based Leadership: The Missing Hemisphere

There have been various critiques of neuroscience-based leadership approaches and their skillful branding, which includes the display of colorful brain models and fMRI images at training events to highlight their scientific aura. Warren Bennis, a well-known pioneer in the field of leadership development, noted that much of this new movement repackages prior insights, especially those of Daniel Goleman on emotional intelligence. He states, “What worries me is people being taken in by the language of it and ending up with stuff we’ve known all along.”<sup>1</sup>

Although such comments raise concerns, there is arguably a *deeper* problem with neuroscience-based leadership approaches that has not received sufficient attention. Their universal claims and attractive packaging can reinforce a convenient “one size fits all” solution for leadership development across global organizations. Such standardized solutions are usually ethnocentric, reinforcing the impulse to evaluate others based on our own standards and

to make “them” more like “us”; this becomes even easier to justify with a seemingly invincible scientific rationale to back it up.

**The core problem with the current applications of neuroscience to leadership is not that they are wrong, but that they are incomplete, unbalanced, and potentially misleading.** It turns out that there is a lot more evidence available, including research from additional branches of neuroscience, that can help provide a fuller picture of humanity with vital implications for leadership.

## Nature and Nurture

Anyone who studied Psychology 101 in college during the past fifty years was likely introduced to the nature vs. nurture debate. Simply put, research indicates that **human beings are products of both their genetic makeup (nature) and their physical and cultural environments (nurture).**

In fact, a key differentiator of humans from other species is that they are *less* genetically pre-programmed (nature) and *more* responsive to novel or changing environmental factors (nurture). Humans develop from childhood based on cultural influences such as how they are held, whom they live with, where they sleep, what they eat, the sounds they hear, the stories they are told, the ways in which they are praised or scolded, and so on. One definition of culture is that it is a way of addressing common human challenges in a particular environment. Each culture passes on the successful survival methods of its elders that fit a distinctive time and place, and these learnings shape the way that each brain is configured.

**To date, neuroscience-based leadership approaches have focused primarily on the “nature” side of nature/nurture equation,** highlighting common features of human physiology and cognitive functioning, while generally ignoring the “nurture” or environmental component, which plays an equally powerful role in shaping human development. **Culture is too often treated cheerfully as an organizational feature to be “built” or “redefined”** based on scientific insights into the brain, **rather than as a pervasive developmental**

influence that shapes the very functioning of the brain itself in different ways, depending upon our upbringing.

## Culture and the Brain: Research Examples

There are a number of studies commonly neglected by current neuroscience leadership gurus that provide fascinating and important evidence for how human brains can be wired differently based on cultural influences.

### *Study #1: Does Self Refer to “Me” or “We”?*

The prefrontal cortex region of the brain is believed to represent our idea of the self. One research study found that this area became active when U.S. study participants thought of their own personal identities and traits. For Chinese study participants, on the other hand, this region was activated by adjectives describing both themselves and their mothers.<sup>2</sup> In other words, the very **definition of self is shaped by culture**. Different definitions of “me” or “we” can and do lead to very different leadership styles.



### *Study #2: Attention to Objects vs. Context*

Another study revealed distinctly different attentional bias based on culture. This study showed sample images to both Western and East



Asian participants. Westerners, whose cultures place a high value on independence and individuality, tended to focus their attention on particular foreground objects, with less regard for context and relationships among items.

In contrast, East Asian participants, whose cultures emphasize interdependent relationships and awareness of context, focused their attention on the context of the image and demonstrated relational processing of information.<sup>3</sup>

So not only our self-definition but also **what we pay attention to is culturally influenced**. Leaders from varied cultural backgrounds may notice quite different things, with some focusing on the action items in the foreground, and others examining the broader context.

### *Study #3: Valuing “Modesty” or “Assertiveness”*

A third study found that the area of the brain that produces dopamine, or the “feel-good hormone,” responds differently based on cultural conditioning. The study showed volunteers from the U.S. and Japan drawings of a person standing in a relatively submissive pose, with head down and shoulders hunched, and of another person standing in a more dominant pose, with arms crossed and face forward.

**Respondents interpreted the same pictures differently based on their cultural values.** Japanese participants produced dopamine when viewing the first drawing, as they interpreted the submissive posture positively, seeing it as a demonstration of modesty and respect. U.S. participants produced dopamine when viewing the second drawing, as they saw the dominant pose as an indication of confidence and strength.<sup>4</sup>

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**How we define ourselves, what we perceive, and the judgments we make are all shaped by our cultural environments...**

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## Implications for Leaders

These three studies and others like them from the **emerging field of “cultural neuroscience”** have enormous implications for the development of leaders on a global scale. To avoid becoming the latest form of ethnocentrism, dressed up this time in white lab coats, brain-based leadership approaches must embrace both nature *and* nurture to help leaders work effectively around the world.

If how we define ourselves, what we perceive, and the judgments we make are all shaped by our cultural environments, leaders need to understand both what makes them similar to *and* what makes them different from their global colleagues. They must also cultivate skills for adapting to each other in integrated global workplaces that could involve virtual meetings, travel to distant locations, or working with a diverse mix of colleagues in the same building.

**Approaches to leadership informed by neuroscience are incomplete if they fail to take into account not only how the brain functions but also the cultural influences that shape it.** What are the implications of a more holistic view of the brain, encompassing both “nature” and “nurture,” for leadership development?

## Culture and Leadership: The Missing Hemisphere

Consider the SCARF model described by David Rock, head of the NeuroLeadership Institute and author of *Your Brain at Work*. Although the five elements of this model—Status, Certainty, Autonomy, Relatedness, and Fairness—are convincingly linked with research into fundamental brain functions such as our “fight or flight” impulses, all of these elements are also subject to culturally based indoctrination and interpretation. It would be a mistake to assume that each SCARF element manifests itself similarly everywhere, or that the model can be applied to promote **“culture change” without cultural understanding**.

For example, while it is true that Status, the “S” in SCARF, is important everywhere, this aspect of human behavior is expressed

and interpreted quite differently based on particular environmental contexts. Some cultures are far more hierarchical than others, and hierarchy is also manifested in different ways. In China, for instance, it is relatively common to have a person who is clearly in the role of the “**boss**” issuing orders in a directive style, while many U.S. and northern European organizations attempt to distribute significant authority to other leadership team members and throughout the organization, endorsing “**leadership at all levels.**”

So in one cultural environment, the greatest perceived threat could be having a leader who is overly directive, violating others’ sense of status, while in another it might be having no boss or unclear lines of authority. In the case of Albert Farnsworth, by attempting to drive change in his new environment using his own culturally conditioned approach to status—delegating authority to local leaders, engaging in regular brainstorming sessions, and introducing local employees to their global matrix counterparts—the result was confusion and disengagement rather than effective “culture change.”

As generations of expatriates have discovered at great cost, culture change is possible within an organization or team with sustained focus over time, but only based on deep knowledge of the broader national cultural environment—and woe to those who embark on a mission to change the whole country. Through the mental lens of Albert’s relatively hierarchical, group-oriented local employees in Hong Kong, and in contrast to his self-image as a skillful facilitator and change agent, Albert appeared instead to be a weak and uncertain leader who failed to make decisive changes while preferring to “delegate and disappear.”

**Status can even take on different, complex forms based on national and organizational cultures that frequently harbor contradictions.** Many companies in the U.S. pride themselves



on their egalitarian cultures and informal styles, while still taking for granted executive compensation that may be as much as 900 times the median employee salary. Major differences can also exist among generations, regions, functions, genders, and socioeconomic classes within the same country.

In Albert's new Hong Kong-based acquisition, it turned out that generational differences were critically important. The most senior managers whose own parents had known great hardship and social chaos (many were refugees from China's civil war and the Cultural Revolution) valued the respect for their status offered by an unchanged job title as well as continuity with previous policies. Meanwhile, employees in the same workplace from a younger millennial generation were more accustomed to prosperity, social stability, and constant opportunities for growth. Many of these employees were far less attached to the status quo and more ready to embrace change, expressing impatience at Albert's slow pace in moving conservative senior leaders out of the way. ("After all, they are the ones who failed and had to sell the company.") For these younger employees, his demonstration of respect for the status of senior local managers was misplaced, and quickly became a source of frustration and disengagement.

What is true for Status also holds for any other aspect of the SCARF model—universal human traits are molded by one's physical environment and cultural upbringing, and are expressed in workplaces around the world in ways that are both similar and different. The SCARF model highlights what we need to pay attention to, but not necessarily how to adapt our approach to fit different global environments. **Leaders ignore culture at their peril, including the nuances and differences within cultures as well as among them.** Numerous costly failures, including cross-border acquisitions, change initiatives, and rollouts of well-intended inclusion and diversity efforts ("Gender issues are the same everywhere, right?") can be traced to cultural blindness.

## Cultural Differences: Five Dimensions

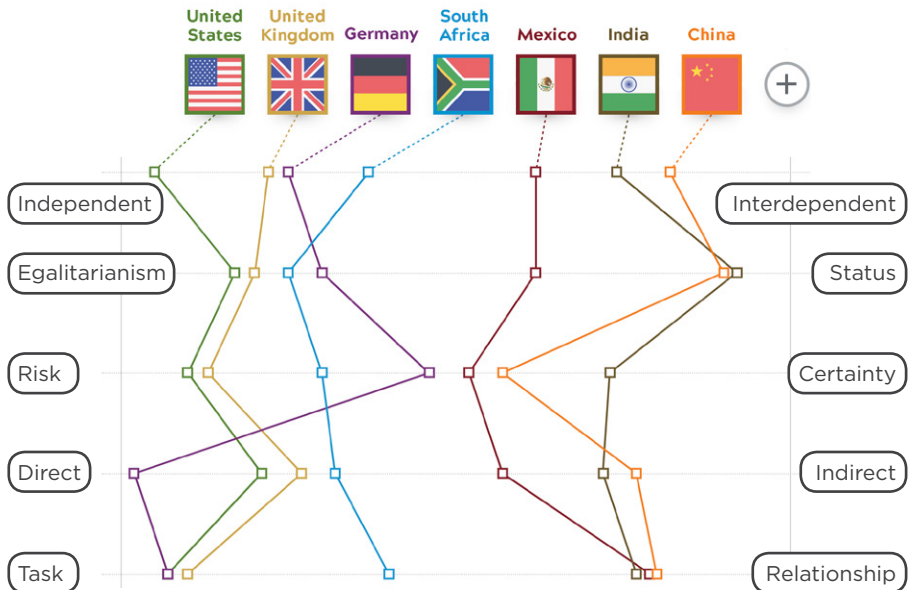
Each of the cultural dimensions depicted in Figure 7.1 below represents a spectrum of behavior that varies based on cultural context.

These dimensions of culture overlap with four out of five elements of the SCARF model:

- *Status*: Egalitarianism/Status
- *Certainty*: Risk/Certainty
- *Autonomy*: Independent/Interdependent
- *Relatedness*: Task/Relationship

Such dimensions highlight contrasts among national cultures that have been borne out by decades of research, including data from hundreds of thousands of survey respondents. National cultures may change over time, but the process is generally slow and uneven, and can result in either convergence or divergence in comparison with other national norms. The ways in which people actually behave along each of these dimensions are influenced by their own dynamic cultural settings just as they are by the structure of the brain—in fact, these two pervasive influences on human behavior are closely intertwined.

**Figure 7.1: Dimensions of National Culture**

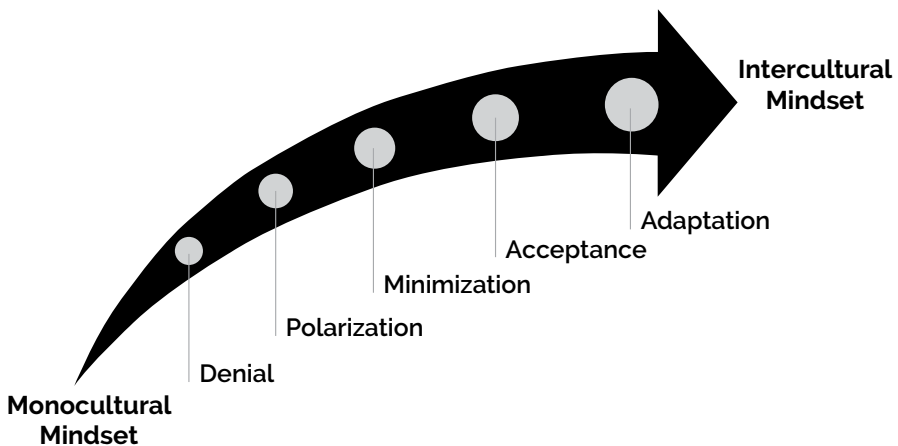


## Leadership Development: Implications

So what are the implications of the “nurture” side of the nature/nurture equation for leadership development? There is of course value to **current neuroscience-based approaches** if they are used wisely, based on the knowledge that they address one part of the leadership development picture and are not a panacea. When used exclusively, however, particularly in a global leadership context, they **can be readily classified as fitting either the “Denial” or “Minimization” phases of the intercultural development scale** that charts movement from a monocultural, or ethnocentric, mindset, to an intercultural mindset.<sup>5</sup>

The stages in this scale, themselves derived from extensive research, are Denial, Polarization, Minimization, Acceptance, and Adaptation. Leadership approaches that focus on human similarities while consistently underestimating differences cannot support progress toward the more advanced stages of this intercultural developmental spectrum. Approaches grounded in the brain’s physiology often tell us that our brains perceive “difference” as a potential threat, but give us inadequate guidance for how to adapt. **Full understanding of the power of culture requires a pragmatic embrace of both similarities and differences.**

Figure 7.2: Intercultural Development Continuum



Holistic approaches to neuroscience and leadership development will incorporate both nature and nurture, or brain physiology and culture. Current and future global leaders need to cultivate knowledge and skills that include:

- Personality *and* cultural self-awareness—personal characteristics as well as culturally based assumptions
- Psychological *and* cultural neuroscience—common features of the human brain as well as the developmental effects of different cultural contexts that also influence how humans behave
- Culture change *and* cultural influence—how to change culture in comparatively small-scale settings (particularly organizational and team cultures) while at the same time recognizing the pervasive influence of national cultures (transmitted via families, schools, and workplaces) on our behavior

A balanced approach to leadership development includes deliberately paradoxical terms such as “adaptive authenticity,” acknowledging the need to work with both what we are given and who we can become. Leaders must draw upon their own upbringing and core values while being deliberately open to “mind-blowing” experiences with colleagues from different backgrounds that could change them forever. This approach is flexible and open-ended, acknowledging that **successful leaders can and do accomplish tasks very differently, and that there are various ways to inspire colleagues and to solve problems effectively in different environments.**

One-size-fits-all approaches to leadership development in any form are alluring but ultimately bound to run squarely into their own limitations. Even attractive and modern-sounding packages such as neuroscience-based leadership can prove lopsided and therefore circumscribed in their usefulness unless they embrace how human beings are both fundamentally similar and profoundly different.

# Resources

## Books

- ***Global Diversity: Winning Customers and Engaging Employees within World Markets*** presents the key cultural variables relevant in eight major markets. The business impact of each unique set of diversity variables is explored and recommendations are provided for developing employees and realizing local market opportunities.
- ***Leading Across New Borders: How to Succeed as the Center Shifts*** explores new imperatives that will help global leaders better understand and navigate across cultures, markets, and management differences.

## Quick Guides

- **Quick Guide to Unconscious Bias**  
<http://tiny.cc/UBQuickGuide>
- **Analyzing Your Talent Life Cycle for Inclusion**  
<http://tiny.cc/TalentLifeCycle>
- **6 Tips for an Inclusive Recruitment Strategy**  
<http://tiny.cc/InclusiveRecruitment>
- **Quick Guide to Managing Inclusively**  
<http://tiny.cc/InclusiveManagement>
- **Tips to Prevent Bias on Global Teams**  
<http://tiny.cc/TeamBias>



# About The Authors

**Ernest Gundling, Ph.D.**, is a co-founder and managing partner of Aperian Global. He assists clients in building strategic global approaches to leadership development, inclusion and diversity, and cross-border business relationships. He has lived and traveled extensively in Asia, Europe, Latin America, and the Middle East, including six years as an expatriate in Japan. A frequent keynote speaker and the author of five previous books—including *What is Global Leadership?*, *Global Diversity*, and *Leading Across New Borders*—he has also served for twenty-five years as a Lecturer at the Haas School of Business at the University of California, Berkeley.



**Cheryl Williams, Ph.D.**, is a highly regarded subject matter expert on global workforce inclusion, diversity matters, cultural competency and leadership across boundaries. She spent over twenty-five years in leadership roles in the entertainment and high technology industries where she managed employee education and training, recruitment, staffing, internal communications, employee relations, and community relations. She has worked extensively in over fifty countries, and serves as Professor Emeritus at Concordia University, Irvine, California.

# About Aperian Global

Aperian Global has provided consulting, training, and online learning tools to 40% of the Global Fortune 100. Aperian Global's employees are dedicated to helping clients work effectively across boundaries, both at home and abroad. The company provides scalable resources for building practical skills and knowledge that help individuals and organizations thrive in an increasingly diverse business landscape.

Aperian Global specializes in research-based inclusion practices— impactful in domestic work environments and adaptable to different world regions—along with strategic global mobility support and holistic cultural competence learning solutions. *GlobeSmart*, the company's flagship online tool, has had more than one million users, and its work-style profile provides a way for team members to compare their styles and adjust to each other. The *Inclusive Behaviors Inventory*, available in both self-assessment and 360 versions, is also part of the *GlobeSmart* platform's assessment suite.

Aperian Global's products and services empower leaders at all levels to work in an inclusive way, engaging partners, colleagues, and employees from any background to deliver results through high-performance teamwork.

Founded in 1990, Aperian Global has offices in Bangalore, Boston, Kolding, Oakland, Paris, Raleigh, Shanghai, and Singapore, and staff and consultants on the ground in over 80 locations worldwide.

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