

Inclusion and Gender through a Neuroscience Lens

By Jacqui Grey and Christine Cox



The 21st century business world is chaotic, marked by global banking, economic, and environmental crises. Work has become a more complex and stressful 24/7 preoccupation in which leaders suffer constantly from cognitive overload. Old-style, hierarchical structures are no longer suitable frameworks for managing change, fostering innovation, or supporting high-quality decision-making. More and more, organizations are now realizing that a key component of leading effectively in this challenging environment lies in building a diverse and inclusive organization. It is no longer a “nice to have,” but rather a business imperative.

The Diversity Imperative

Recent reports confirm that organizations with more diverse boards—for example with more women on them—are more profitable. Inclusive leadership is a fundamental capability for 21st century leadership. Appointing more women to boards is a fundamental element of inclusion. Studies have shown that firms with females in the

C-suite generated an additional \$44 million (Dezsö & Ross, 2012), and those with at least one female board member had consistently superior share price performance, 4 percent higher return on equity, and 4 percent higher net income growth (Credit Suisse, 2012). Teams that include more women outperform teams with more men, due in part to increased social and emotional intelligence (Woolley et al., 2010; Woolley et al., 2011). Companies are now identifying that decision-making and risk are strategic imperatives for their businesses, and that diverse perspectives and strategies for mitigating bias are key to their improvement.

Forward-thinking organizations like Accenture are looking at inclusion as a more important aspect than just diversity for its own sake. Neuroscientists are learning that the feeling of inclusion and subjective responses to feelings of rejection are perhaps more important. Within this article we outline how neuroscience contributes to the dialogue on inclusion and gender in the workplace.

Cognitive Biases Working Against Inclusion

One powerful way of achieving tangible improvements in revenue, profits, and innovation is through cognitive diversity—the ability of organizations to learn from differing and potentially conflicting points of view. Since most boards are not diverse, there is an inherent problem. Cognitive diversity is hampered by cognitive bias—the mental shortcuts and unconscious drivers that affect our behavior and decision-making. For example, people tend to think more positively about and allocate more resources to those who are more similar to themselves (known as “in-group bias”). As mentioned, studies led by Anita Woolley at Carnegie Mellon University have found that teams with more women on them outperform male-dominated ones in part due to increased social and emotional intelligence.

Cognitive biases aren’t just quirks of behavior; they are rooted in the way the brain is wired. Psychology and neuroscience research have identified more than one hundred of these kinds of biases, which Matthew Lieberman and colleagues categorized into five overarching domains, termed the “SEEDS of bias:” similarity, expedience, experience, distance, and safety (Lieberman et al., 2015). Each is relevant to diversity, inclusion, and gender in distinct ways.

Similarity

We want to see ourselves and our group (the people we identify with) in the best possible light. This means we prefer people we see as similar to ourselves to the detriment of those we perceive as different—an “us vs. them” orientation (e.g., the “in-group” bias previously mentioned). The brain makes clear distinctions between similar and dissimilar others, representing them in different patterns of activation.

The problem for diversity here is clear. Our cognitive and neural biases make similarity and exclusion, instead of diversity and inclusion, our natural way of operating. In the case of an all- or predominantly-male board, C-suite, or team, gender diversity—and by extension, cognitive diversity and all of its benefits—fail to be maximized.

The similarity bias particularly affects women, as they are, at

least in some ways, dissimilar to men. Women are more likely to admit to confidence issues, are perceived as more emotional, and interact with colleagues in different ways. The simple fact that people like to hire in their own image shows one reason why male-dominated boards are more likely to produce all-male shortlists and perpetuate the diversity challenge.

Expedience

One upside to cognitive biases of expedience is that they allow us to make quick and efficient decisions, freeing up processing resources to devote to other, potentially more pressing matters. A major downside, however, can be a big one—those decisions can be based on faulty or incorrect judgments. In

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situations where gathering relevant, objective information is critical to making the best decisions, relying on our brain’s fast, intuitive processing systems aren’t always the best choice. When we need to exert that extra cognitive and neural effort, our mental shortcuts will get in the way. The business world is demanding decisions be made under increasing pressure with fewer resources and less time, setting the stage for biases of expedience to run rampant.

Cognitive diversity will also take a hit in this case—less time and fewer opportunities to gather diverse opinions will set the stage for decision-makers to rely only on their intuition, which is likely to depend on what feels right, what information is most easily accessible, and what confirms initial assumptions versus what is objectively the most relevant information and the best choice.

Experience

Experience biases affect our perceptions of ourselves and others. They are the filters we see the world through. We erroneously assume that the way we view the world is objectively true, instead of subjective and likely different from others’ experiences. These biases can be the most difficult to address because they happen so far outside of conscious awareness, even when people know that they exist. One classic bias of experience is the “bias blind spot” (Pronin et al., 2002), where a person can quickly and easily identify biases in other people, but believes that his or her own decisions and behaviors are bias-free.

If a person deeply believes that his or her experiences, beliefs, and opinions are the true and correct way of viewing things (and by default that others who disagree or hold differing views are wrong), then cognitive diversity is lacking.

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other people know that they exist, they significantly hamper our perceptions of people of different cultures and genders.

Distance

People have an unconscious tendency to place greater value on things that are close to them, relative to things that are perceived as being farther away. This is true of things that are close to us physically (e.g., something that is in our possession vs. something someone else has) as well as temporally (e.g., something happening tomorrow vs. a year from now). Perhaps not surprisingly, the brain is wired to give more credence to things that are more likely to affect us in the here and now.

Promoting cognitive diversity includes considering and combating distance. During a meeting, for instance, we are more likely to place greater value on the opinions of those that are physically present and most vocal in the moment, opposed to those who participate remotely, speak quietly or take more time to consider their thoughts and share them at a later stage. As Woolley's research shows, gender-diverse teams are more likely to include all participants and less inclined toward one person dominating conversations at the expense of others.

There is some irony in the fact that while decision-making would be significantly improved by making boards and businesses more diverse, the biases this would help overcome actively conspire to maintain the status quo.

Cognitive diversity promotes inclusion and is one way to protect against the potential negative effects of distance biases.

Safety

Our brains are wired to be sensitive and pay more attention to things in the environment that are potentially negative or could pose a threat. This contributes to biases of safety—the fact that people perceive bad to be stronger than good. One example of this is loss aversion. If you were going to gamble on a bet where you had the potential to lose \$1,000, how much money would you have to win to offset that potential loss? On average, people will answer \$2,000—it takes twice as much of a potential reward to balance out a potential loss. In other words, bad (a negative, a loss) is about twice as strong as good (a positive, a reward). This negativity bias is central to how our brains process information and colors how we see the world and make decisions.

Unfamiliarity—anything that challenges our up-to-now experience of the world and beliefs about how things work—is likely to trigger safety biases. Things we don't have experience with are unknowns, and "unknown" equals "potentially dangerous." Again, these biases are impediments to cognitive

diversity because diversity inherently includes "different," "challenging," and "novel." We have already seen that we are suspicious of and much less likely to be open to the opinions of people we perceive as different from ourselves, and safety biases offer one more piece of the puzzle. Something different is something unknown, and our safety biases make it highly likely that something unknown will be perceived as negative and potentially threatening. It is safer to assume what you don't know might hurt you than to be vulnerable to possible danger.

SEEDS as It Relates to Gender

So why are women so underrepresented at senior levels? While there are many opinions regarding the reasons for this, neuroscience research points to sex differences in brain structure as well as brain chemistry (Cosgrove et al., 2009; Cahill & Aswad, 2015). One recent large-scale study on brain connectivity concludes that male brains are wired for communication between regions involved in perception and action planning; female brains, on the other hand, are more likely to facilitate communication between modes of processing (i.e., analytic and intuitive) (Ingalhalikar et al., 2014).

Other research shows that, when you look across a large number of studies, women show greater activity in emotion processing brain regions (e.g., the amygdala) for negative emotional information, while men show greater activity in these same regions for positive information (Stevens & Hamann, 2012). Although sex differences exist and their influence should be considered, these differences don't necessarily mean that men and women will behave drastically differently in leadership roles. For example, even though men have much higher levels of testosterone than women, it appears that the *balance* between testosterone and cortisol (a stress hormone) is what determines whether someone, male or female, is likely to be a good leader. High levels of testosterone combined with low levels of cortisol predict better leadership behaviors in both men *and* women (Mehta & Josephs, 2010). But given what we know about sex differences in the brain, specifically that female brains are more sensitive to negative emotional information (i.e., increased amygdala activation, increased cortisol production), it may be the case that women are more susceptible to high levels of cortisol—not the low levels that are associated with strong leadership. This may contribute to accusations of women being over-emotional, which can in turn affect their career progression and confidence—a direct threat to cognitive and gender diversity.

Another challenge for cognitive diversity is related to flexibility. Organizations must learn to trust and value flexibility if they are to attract the best talent, embrace diverse groups, and compete in global markets. Women may need to be better at creating their own opportunities and selling the benefits to their organizations. Being flexible and agile while retaining your authenticity is a key 21st-century leadership capability.

Mitigating Bias

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would be significantly improved by making boards and businesses more diverse, the biases this would help overcome actively conspire to maintain the status quo.

But with similarity and exclusion as our natural way of operating, male, white middle-class organizations must work to look beyond the safest and most expedient actions to break the cycle of bias and proactively drive the kind of inclusion that would significantly improve decision-making in the future.

For real progress to be made, it is important to see diversity and inclusion through a new lens. We now understand far more about the unconscious biases that affect cognitive diversity, but this awareness alone will not change behavior outcomes. Instead, we need to look at mitigation strategies at an organizational and personal level, and put in place organizational processes that mitigate bias, together with automatic prompts for individuals that help build new habits and ultimately create new wiring.

Traditional unconscious bias training focuses our attention on its existence. However, awareness is not enough, and the intention to not be biased will not directly lead to unbiased behavior or decisions. Leaders must pave the way in modeling more helpful behaviors and teach people to mitigate biases by building new habits. Things like if-then plans work wonders. A simple thought, such as, “If there is only one woman at the table, then I will ask for her point of view first,” creates a new habit, which in turn forms new wiring. Once associations are made and connections are strengthened in the brain, the behavior becomes more automatic. And behavior will ultimately change.

Organizations should consider putting in place robust internal processes and systems to help eliminate bias. In recruit-

ment, for example, leaders at every level should consider diversity in hiring decisions and push headhunters to deliver more diverse shortlists, returning shortlists that do not show diversity. Talent selection processes should also be overhauled. The way decisions are made should be checked for expediency biases. Staff should be trained to be more inclusive when people remotely join long meetings. These small changes can have a big impact on people’s feelings of inclusion. The call to action is to do something different that makes a difference. ■■

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