

Wired and unaware: The neuroscience behind leaders' greatest liability

The greatest leadership liability is lack of awareness. Neuroscience research indicates that as leaders gain power, their brains get rewired in ways that reduce their ability to accept feedback, empathize, or reflect. Neuroscience also suggests some ways leaders can rebuild their self-awareness.

Imagine a room filled with America's most powerful leaders—CEOs, politicians, influencers—all certain they're models of self-awareness, modern-day Socrates in suits and sneakers. Research tells a different story. In her landmark study, published in her book *Insight*, psychologist Tasha Eurich found that while 95% of people think they're self-aware, only 10–15% actually are.¹ At Heidrick & Struggles, we've analyzed more than 75,000 senior executive assessments, and only 13% show true self-awareness. That's not just a leadership flaw—it's a systemic vulnerability.²

Classic "illusory superiority," also known as the Dunning-Kruger effect, can take hold in any context: the worst performers often rate themselves above average, precisely because they lack the awareness to see their own limitations. But at the top of organizations, this tendency becomes something more insidious: what researchers call the "CEO bubble," in which, as leaders gain power, they become insulated from candid feedback, Sycophancy only deepens the isolation, and leaders develop the illusion of self-awareness without the reality.³ All this literally changes leaders' brains. Indeed, neuroscientific research shows that as a person's power rises, the activity of their mirror neurons (cells that fire both when we perform an action and when we watch someone else perform it) drops, dulling the ability to read emotional cues and map others' behavior onto their own.⁴ In short: leaders can grow neurologically less responsive to others, and therefore become even less often than their followers able to hear blunt truths necessary for accelerating their own and their organizations' performance.

Today, these fundamentals of brain chemistry are combining into a toxic mix along with cultural conditioning, the increasing prevalence of digital dopamine that stifles reflection, and flattery from AI. More and more leaders are getting stuck, and it's getting harder to avoid. Leaders are trying. Neuroscience offers helpful insight into how we got here—and how we might reverse course.



- 1 Tasha Eurich, *Insight: Why We're Not as Self-Aware as We Think, and How Seeing Ourselves Clearly Helps Us Succeed at Work and in Life*, (Currency, 2017).
- 2 Les Csorba, "Too aware to fail," Heidrick & Struggles, August 1, 2024, heidrick.com.
- 3 Dacher Keltner, "The Power Paradox," Greater Good Magazine, December 1, 2007, <https://greatergood.berkeley.edu/>.
- 4 J. Hogeveen, M. Inzlicht, and S.S. Obhi, "Power changes how the brain responds to others," *Journal of Experimental Psychology: General*, no. 143(2), 755–762.

The toxic cauldron

Self-awareness isn't housed in one brain region—it's the product of several systems working together. The medial prefrontal cortex helps us reflect on our actions and values. The anterior cingulate cortex flags discrepancies between how we act and how we *should* act. When these systems work in harmony, they help us recognize blind spots, correct course, and lead with integrity. When they are affected—by digital tools, organizational politics, or both—our blind spots become ever more opaque.

The dopamine dilemma: Hooked on digital candy

Ever wonder why you can't stop scrolling? Thank your brain's dopamine system, which lights up every time you get a like, mention, or update. Digital rewards, studies have found, activate the same neural circuits as addictive substances.⁵ When AI gets added to the mix, the experience gets ever-more personalized. Algorithms don't just guess what we like—they serve it up on a silver platter, with a side of ego-stroking. They nod along, echo our vibes, and tell us exactly what we want to hear.

The result? Our brain's prefrontal cortex—the home of self-reflection, moral reasoning, and planning—gets sidelined. When we're caught in a dopamine-driven loop, we're not reflecting, we're reacting. Our brains are too busy chasing the next like to bother with annoying introspection.

Narcissism: The infinite scroll of self

If dopamine is the fuel, narcissism is the engine of our self-awareness deficit. Decades of inflated self-esteem messaging, amplified now by curated online personas and heightened sensitivity to reputational feedback, have created a culture more focused on affirmation than introspection. Leaders of any kind of organization often find that confidence outweighs humility in the climb to the top, and boardrooms too often reward image rather than insight. The higher leaders rise, as we've noted, the less feedback they tend to receive. And when feedback is scarce and image is everything, narcissism and self-delusion don't diminish, they accelerate. The effect of power on mirror neurons we noted earlier helps explain why.

The result? Institutions led by individuals who are admired externally but rarely challenged internally. Some of these leaders can be productive, when excessive self-interest aligns with global or human interests—think Winston Churchill or Steve Jobs. But most are not. And here too, our physical brains are affected: narcissistic traits correlate with reduced activity in our pre-frontal cortexes and reward-regulation circuits—the regions essential for emotional control and introspection.⁶ Furthermore, studies have found that narcissistic leaders overestimate their performance and resist corrective feedback.⁷

In our own analyses of 75,000 leaders, we looked at toxic traits such as willingness to exploit others, hypersensitivity to criticism, and callousness. Interestingly, we didn't see a linear rise in toxicity with seniority; instead, earlier-career leaders showed higher risk markers in these areas, reinforcing the risk: when people are prone to these traits, it can be even harder to address effects like narcissism as they develop with seniority.

Taken together, then, leaders are more likely to be flattered than challenged, while social media reinforces curated self-images that rarely confront inconvenient truths. Indeed, grandiose narcissism aligns with frequent self-promotional behaviors online, like dopamine-generating selfies, status updates, and follower accumulation.⁸

- 5 Dar Meshi, Carmen Morawetz, and Hauke R. Heekeren, "Nucleus accumbens response to gains in reputation for the self relative to gains for others predicts social media use," *Frontiers in Human Neuroscience*, no. 7 (2013), 439; Bruce Goldman, "Addictive potential of social media, explained," Stanford Medicine News Center, October 29, 2021, <https://med.stanford.edu>.
- 6 Richard Bakić, Clara Isabel Pantoja Muñoz, Andrea Bizzego, and Alessandro Grecucci, "Unmasking the dark triad: A data fusion machine learning approach to characterize the neural bases of narcissistic, Machiavellian and psychopathic traits," *European Journal of Neuroscience*, no. 61(2) (2025).
- 7 Emily Grijalva, Peter D. Harms, Daniel A. Newman, Blaine H. Gaddis, R. Chris Fraley, "Narcissism and leadership: A meta-analytic review of linear and nonlinear relationships," *Personnel Psychology*, no 68(1) (2015), 1–47.
- 8 Jessica McCain and W. Keith Campbell, "Narcissism and Social Media Use: A Meta-Analytic Review," *Psychology of Popular Media Culture*, no.7(3) (2026), 377–393.

This isn't a trivial flaw—it's a systemic weakness. In crisis moments—whether financial, geopolitical, or organizational—leaders must adapt, absorb, and align. That starts with awareness of one's own limits. But our current culture does the opposite: it keeps us plugged in, puffed up, and profoundly unaware. Imagine trying to play a team sport when half the players are distracted by their phones and the others are posing for selfies.

All this is fundamentally rewiring our brains, weakening the circuits that help us see ourselves. That's a challenge we must meet, in this time when leadership and moral choices demand, perhaps more than ever, the clarity and humility of true self-awareness.

From hubris to humility: Rewiring the culture and ourselves

Here's the good news: as much as our brains are being rewired away from self-awareness, the changes aren't permanent. Self-awareness can be built and rebuilt. It starts by stepping back from the dopamine deluge and re-engaging with habits that sharpen reflection. Some of our colleagues have found increased self-reflection, higher awareness, and renewed creativity by gardening, painting, and long-distancing running. Other practices people find helpful include journaling, enjoying solitude, soliciting candid feedback, taking social media fasts, and engaging in dialogue with those who see the world differently.

Decades of psychological research confirm that practices like these are not just feel-good rituals—they improve self-regulation, adaptability, and leadership effectiveness. Even brief mindfulness and affect labeling practices produce measurable changes in attention and emotion-regulation circuits that boost learning and self-regulation and reduce reactivity, neuroscience research has found.⁹

The experience of Travis Stice, longtime CEO of Diamondback Energy, a top-performing oil and gas producer in the Permian Basin, is a powerful example of the value of choosing the path of self-reflection. Under Stice's leadership, the company has delivered a remarkable 940% total shareholder return. But one of the most pivotal moments in his leadership journey came well long before the accolades—back in 1993, when he was a young engineer at Burlington Resources. He was working hard and confident a promotion was coming. Instead, three of his peers were elevated while he was passed over. The feedback was blunt: colleagues felt he was leveraging the team more for personal gain than shared success. It stung—and it stuck. "It had the ring of truth," he later said. That painful but honest moment sparked a turning point. Stice made a deliberate decision to become the opposite of what the feedback described. He would lead not by ambition, but by service. He shifted from self-promotion to supporting others, embracing a philosophy of servant leadership. "That moment of heightened self awareness," he reflected, "was foundational and instrumental in my transformation."

Jamie Dimon, the CEO of JPMorgan Chase, incorporates a similar kind of awareness, in his case a kind of healthy paranoia—a constant scanning for blind spots—that keeps him sharp and his strategic insights in context. He pairs that with an unusual accessibility: from his open-door policy to his Heartland Tours across middle America, Dimon avoids the executive echo chambers that have undone so many of his peers. One telling moment came at home, when his middle child overheard him berating a colleague over the phone and asked, "Dad, why are you so angry?" That simple question cut through—and reminded him that even the most powerful leaders need to keep asking: How am I showing up?

⁹ Britta K Hölzel, et al., "Mindfulness practice leads to increases in regional brain gray matter density," *Psychiatry Research: Neuroimaging*, no. 191(1) (2011), 36–43; Matthew D Lieberman, et al., "Putting feelings into words: Affect labeling disrupts amygdala activity in response to affective stimuli," *Psychological Science*, no. 18(5), (2007), 421–428.

Also consider Jeff Miller, the unassuming CEO of Halliburton, one of the world's largest energy companies, who practices what he calls "self-honesty"—an awareness of his ability, or inability, to solve every problem that arises. "There are days when I lead, and others when I need to follow," he told me.

Another example, from before the digital age made it near-impossible to escape noise and flattery, underscores the importance of humility and clarity to successful leadership. During World War II, some of the Allies' most effective generals actively sought out disagreement, knowing that unchallenged thinking was dangerous. General George Marshall, famously intolerant of yes-people, once told his senior staff: "Gentlemen, I'm disappointed in you. You haven't disagreed with a single decision I've made." It was a striking reminder that real leadership requires more than authority—it demands the self-awareness to invite challenge, not avoid it.

We need leaders who seek truth over applause. Institutions that reward insight over image. Leaders with the discipline to unplug, reflect, and ask "What am I missing?"

This is not merely a personal virtue—it's a public necessity.

How leaders can reclaim self-awareness

Based on our work with clients, our research, and a range of psychological studies, we offer the following recommendations for leaders who want to start rewiring.

Re-engage your reflection system

- Protect time for solitude, reflection, journaling, or other practices that activate the medial prefrontal cortex and anterior cingulate cortex. Scheduling quiet or thinking time is essential to avoid burnout and maintain clarity of thought, especially for leaders driven by results.
- Step out of reactive loops (e-mails, pings, social feeds) to re-engage the brain's slow thinking mode, which is necessary for reflection and correction. Take on the discipline of self-control by stepping back from immediate tasks to focus on long-term strategic thinking and broader organizational goals. Writing down daily "to be" lists and not just "to do" lists will also strengthen the medial prefrontal cortex for self-reflection.
- Take intentional "dopamine sabbaths," regular breaks from social media, news alerts, and attention-fracturing apps. Stepping back from digital distractions can enhance focus and self-awareness, allowing for more intentional engagement with priorities.
- Integrate spiritual, ethical, or philosophical reflection into your leadership rhythm to sustain a deeper, non-transactional identity, reinforcing your understanding of self and purpose in leadership.

Create honest feedback loops with a diverse inner circle

- Proactively seek out disagreement and critique—not just from peers, but from people with no incentive to flatter you. Surround yourself with truth-tellers, not bobbleheads—people who reflect different worldviews, temperaments, and generational insights. Actively engaging stakeholders and expanding your networks can help create honest feedback loops by inviting diverse viewpoints that provide new insights and perspectives essential for informed decision-making and enhanced self-awareness. Embrace regular 360-degree feedback, anonymous pulse surveys, and family input (such as Jamie Dimon's wake-up call from his daughter) to check how you're showing up. This holistic approach to feedback fosters a deeper understanding of your impact and encourages continuous personal and professional growth.

- One client, a CEO of a \$25 billion private equity firm, included his wife as one of his raters on his 360 reports so he could fully understand how he was showing up at the office and at home.

Reframe self-awareness as a discipline, not a trait

- View self-awareness not as a fixed quality, but as a daily practice requiring curiosity, discomfort, and repetition.
- Cultivate “self-honesty” (as Jeff Miller puts it): admit what you don’t know, can’t solve, or failed to notice.
- Practice active listening and empathy to enhance your communication. This not only strengthens relationships but also reinforces the discipline of self-awareness as an essential component of effective leadership.
- Encourage and role model openness and vulnerability. This approach builds trust and authenticity, allowing for stronger connections with team members and stakeholders.

Highlight the benefits of varied perspectives

- Model openness in meetings by asking, “What am I missing?” and rewarding those who speak candidly.
- Emphasize the inclusion of varied perspectives to cultivate a richer understanding of issues. Actively inviting diverse viewpoints supports the idea that self-awareness can be developed through exposure to a wide range of ideas and experiences.

Build cultures that reward insight over image

- Encourage institutional norms that prize long-term performance over short-term charisma. Focus on strategic clarity rather than just immediate results or appearances to reinforce a deeper understanding of leadership impact.
- Promote people who show emotional intelligence, curiosity, and coachability—not just resume polish or bravado. This approach fosters a culture that values growth and development in leaders, aligning with the emphasis on long-term clarity.

Anchor leadership identity beyond performance

- Recognize that leadership clarity begins with personal clarity. Know who you are outside of what you achieve. Articulating your vision and connecting it to broader organizational (or personal) values can help anchor your identity beyond performance metrics.
- Tie goals, promotions, and recognition to how results are achieved, and publish impact narratives alongside performance dashboards to keep organizational identity bigger than quarterly numbers.

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