



WHOLE BRAIN THINKING

{Ignore It at Your Peril}

By Ann Herrmann-Nehdi

Whole brain thinking has everything to do with employee performance. Think about how your customers' brains learn when designing learning and performance programs.

Thirty years ago, a high-potential manager in a training class at General Electric's corporate university listened as my father, Ned Herrmann, then head of GE's management education, discussed research he was developing on how the brain affects day-to-day operations.

Struggling to find relevance, the manager remarked, "Learning about the brain is certainly interesting, but Ned, what does the brain have to do with managing?"

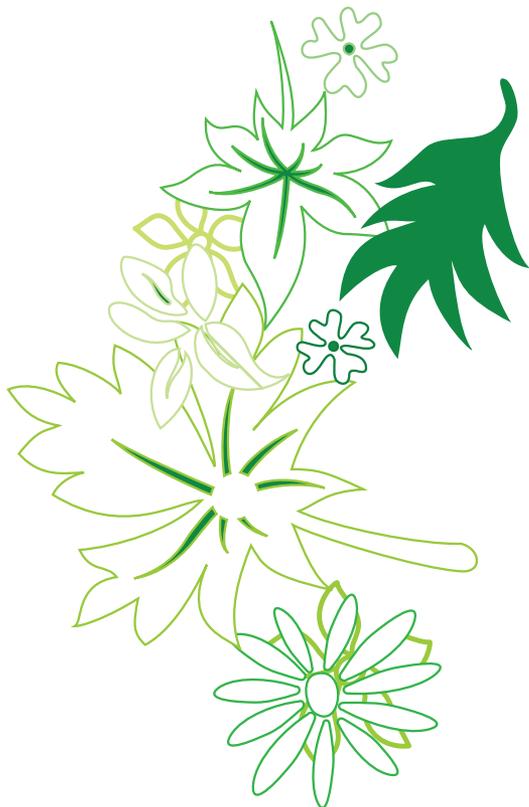
"Everything!" Herrmann replied.



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it's your whole brain. You just need to learn how to access and use it. To be efficient and creative, seek out people who might make you uncomfortable but who will provide a different perspective. It may turn out to be the winning differentiator.



By contrast, those learning about whole brain thinking today are often struck by its real-world impact and applications. A manager in a recent whole brain thinking leadership program exclaimed: "If only I had known this years ago! It would have saved me so much time and frustration!"

Yet, even in the midst of an explosion of information about the brain—from the plethora of studies and books to the emergence of new fields ("neuro-fill-in-the-blank") to the deluge of programming ranging from Charlie Rose to the nightly news—many questions still linger:

What do the brain and whole brain thinking have to do with work performance? What have we learned, and what are the implications for the 21st century? What do you need to know now to increase performance results? And what must we, as workplace performance professionals, do to make full use of the diversity of brains in our organizations?

What is whole brain thinking?

Originally inspired by the popular left brain–right brain research into brain specialization, the concept of a "whole

brain" has evolved into a useful but often poorly defined framework for learning and performance.

We know that the brain functions as a whole system—a valuable sum of its parts—integrating the various specialized functions of the asymmetrical brain. All current research continues to reinforce this initial finding of the late 1970s: that the 100 billion neurons in the brain are indeed specialized.

As neuroanatomist Jill Bolte Taylor describes it in her book *My Stroke of Insight*, "Although each of our cerebral hemispheres processes information in uniquely different ways, the two work intimately together when it comes to just about every action we take. The more we understand about how our hemispheres work together to create our perception of reality, the more successful we will be in understanding the natural gifts of our own brains."

The first critical takeaway from whole brain thinking that we need to understand is that we are designed to be whole. The brain is specialized, and the degree of specialization affects how we think and what we pay attention to. We do not function with "half a

brain" as the terms "left brained" and "right brained" imply. In fact, the brain's very design gives us the opportunity to think in terms of *and* versus *or*.

This is not new information, although the advent of popular books, such as Daniel Pink's *The Whole New Mind*, which focuses on the power of right brain thinking, has contributed a new level of general awareness to the subject.

But as Pink himself recently said to me, "Left brain approaches haven't become obsolete. They've become insufficient. What people need today isn't one side of the brain or the other, but ... a whole new mind."

We are designed to be whole, but our brains have developed favoring certain types of thinking and learning over others, and those preferences have consequences. The good news is that because we are designed to be whole, we have the ability to think in a whole brain way, even though we have a tendency to default to our preferences. Therein lies the key to competitive advantage—the individual or organization that develops the ability to create and communicate in new ways, without limits.

New learning about learning

What has changed? Technology, for one, has opened the door to faster and more in-depth research than was possible when the early studies were conducted.

To perform his initial experiments demonstrating specialization, my father actually wired me up to an EEG for testing. Today's much less invasive technology has enabled us to learn significantly more about how the brain works.

How often have you wondered why a learner struggles with a given activity? The wide range of diagnostic devices now available to us can monitor brain activity in new ways, and that has led to an array of new findings. For example, one fascinating study explained why infants can learn any language without difficulty, yet adults struggle hearing sounds as they attempt to learn new languages.

New studies conducted by Daniel Goleman (author of books on emotional and social intelligence) and others have generated a growing body of research that has led to new insight into how people are affected by the design of the brain. As author and Harvard researcher Clayton Christensen points out in the book *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*, this research shows that "people learn in different ways—some of this is encoded in our brains at birth; other differences emerge based on what we experience in life."

The second takeaway about whole brain thinking is that we need to understand that the design of our brain affects the way we learn. Learning actually creates new neuronal connections. As learning professionals, it is essential to have a solid foundation of knowledge about the brain to effectively drive learning outcomes. From there, we can use practical tools to diagnose learners and apply that knowledge to raise organizational performance.

When it comes to learning design, whole brain thinking and learning is, in a nutshell, your "killer app." Understanding learners' thinking and learning styles is the first step toward developing learning that engages and sticks. (See "The Learner: What We

A RETROSPECTIVE:

The Impact of Ned Herrmann's Work Today

Ned Herrmann published his initial research as a two-part series in *T+D* in 1981-1982 ("The Creative Brain, Parts I & II").

The vast amount of brain research that has been conducted since leaves us with one key fact: The whole brain's effect on organizational performance is real.

Examples of the payoffs of whole brain thinking are abundant in the business press. An article in the June 2009 issue of the *Harvard Business Review* titled "Innovation in Turbulent Times" discussed the importance of pairing an "analytic left brain thinker with an imaginative right brain partner as the key to growth." It provides many success examples of what they call "both brain" organizations. This article actually echoed many of the messages from another HBR article, "Putting Your Company's Whole Brain to Work," which was published more than a decade earlier in July of 1997.

The benefits have been applied successfully in the world of academia as well. Colleges and universities are using the concepts in new "universal innovation minor" programs (University of Maine, led by author Doug Hall) for engineering (University of Michigan and MIT) and for MBA and executive education (Wharton and Franklin University). An entire discipline of whole brain application, design, and delivery continues to grow.

Across the globe, thousands of professionals are applying whole brain thinking across a wide range of applications from the classroom to the boardroom, documenting these results:

- reduced calls to supervisor (23 percent)
- reduced attrition (50 percent)
- increased customers (13 percent)
- increased after-tax profits (21 percent)
- increased mentor program success (98 percent of pairs "stuck" versus 50 percent)
- moved from tactical to strategic thinking in HR leaders
- received a greater number of ideas used from new hires
- eliminated costs associated with product breakage
- improved team effectiveness (66 percent)
- climbed from last place to playoffs for sports teams
- reduced costs (25 percent)
- increased magazine's revenues (from \$80,000 to \$450,000)
- improved safety numbers (hit target)
- reduced repeat calls in call center operations by 50 percent; reduced staff turnover.

Need to Know" in the *ASTD Handbook for Workplace Learning Professionals*.)

How to use whole brain thinking

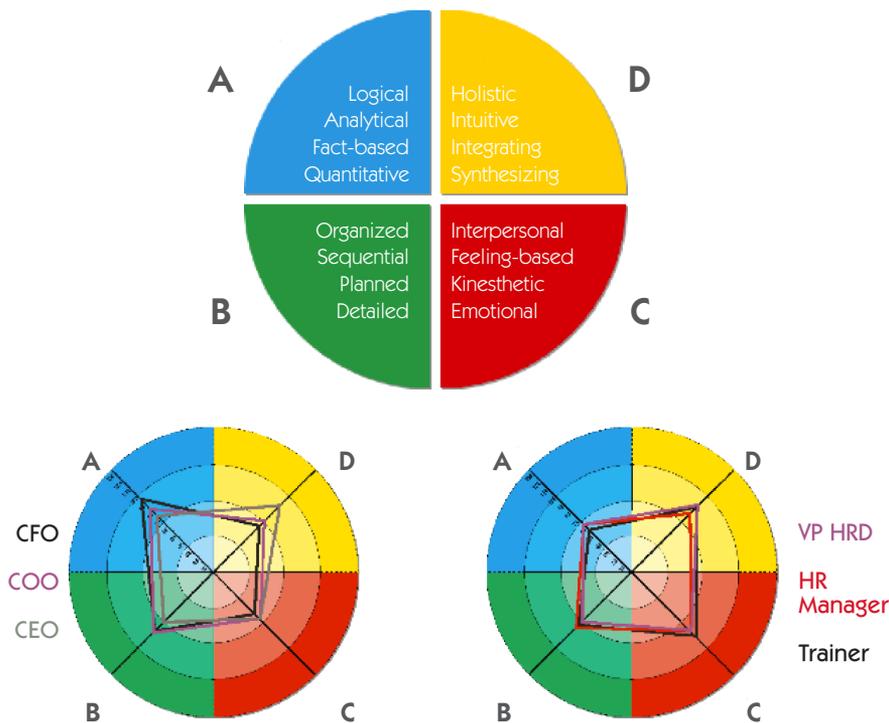
With performance improvement critical to success in these difficult times, we must identify the areas where a whole brain approach can have the greatest impact.

Are you struggling, as many others are, with an increased workload but fewer resources? The solution rests not in using our brains more (we don't

have unlimited capacity), but in using them more effectively.

Author and thought leader Charles Handy asked CEOs what percentage of the brainpower was actually used in their organizations. The response: about 35 percent. Most audiences I work with agree, with many citing numbers as low as 2 percent. Clearly there is an opportunity for improvement (being mindful rather than mind-full) by tapping into the brainpower available to us.

Figure 1 | Herrmann Whole Brain Model



So, the third critical takeaway we need to understand is that a whole brain approach helps us get more from our collective brainpower. Whole brain thinking can build bridges between functions, generations, and levels, and between any “disconnects” that exist in an organization. This in turn contributes to reaching greater productivity, innovative solutions, increased speed, and even cultural transformation.

With a common understanding of thinking preferences and the benefits of whole brain thinking, people see the necessity and utility of diverse thought. At that point, we can begin fully leveraging the individual and collective brainpower of the organization.

This is an approach that IBM has used to achieve many successes within its global leader development program.

IBM’s globally integrated workforce gives it a competitive advantage in serving clients, says Rich DeSerio, manager of the IBM leadership development programs’ Global Design Team.

“To be truly global requires that all IBMers be culturally adaptable in all

its forms,” says DeSerio. “This extends beyond just understanding our cultural diversity to using this diversity to extend that competitive advantage. Whole brain thinking allows us to understand, appreciate, and most importantly, leverage the diversity of thought that naturally exists in our company.”

Whole brain thinking also shows us that we all learn differently, have access to different thinking preferences, and flex our thinking when the situation demands it.

Need buy-in? Use your whole brain

When budgets are tight and proving value is critical, whole brain thinking provides a framework for harnessing all the brainpower at your disposal.

Why not start with our own profession? For years, I have heard leaders in our field say that they want a “seat at the table.” This struggle to prove the business value of our function is often rooted in a tendency to speak from our own preferences rather than adjusting for the needs and expectations of senior business leaders.

In Herrmann International’s 30 years of research, we have gathered more than 1 million data samples, and clear patterns have surfaced.

The data reveals that workplace performance professionals have their own specialized preferences, while senior and “C-level” executives tend to be more whole brained in their thinking, with a tilt toward their functional background or expertise (see Figure 1). The workplace performance professional’s frustrations frequently come from a failure to use a whole brain approach when attempting to demonstrate the value and return-on-investment (or, as I like to define it, intelligence) of their core work.

A training manager once told me, “I can’t seem to get them to acknowledge the improvements we’ve achieved.” What I found was that he had overlooked a critical piece of “A quadrant” thinking that all senior leaders need to see pre- and postbenchmark data.

In another organization, a lack of “B quadrant” thinking led to a rocky rollout of a global change initiative because last-minute changes were made to correct overlooked logistics, communication, and management issues.

How many e-learning initiatives have sat on “virtual shelves” without adoption by target users? A technically perfect e-learning curriculum that doesn’t culturally fit or hasn’t been positioned for value is doomed to fail because it overlooks the “C quadrant” needs of customers.

Years ago, I worked with a very enthusiastic learning and development group that was launching a new training program. When asked by a visiting senior executive how this aligned with corporate strategy (important to the “D quadrant”) they could not give an immediate or compelling answer.

Not only are individuals designed to be whole, our data shows that organizations are whole brain entities, too. Thus, key initiatives must be whole brained to meet the organization’s needs. If we do not begin applying whole brain thinking, our profession will remain marginalized as “soft stuff”—prisoners of our own preferences, focusing uniquely on the

learning aspects that we feel are most important but that we are unable to sell to decision makers.

Diverse by design

Whole brain teams are also producing big dividends for many organizations. A six-year study conducted with the U.S. Forest Service using the Herrmann Brain Dominance Instrument (HBDI) demonstrated that whole brain teams can be up to 66 percent more effective than randomly assigned teams. A few caveats: One whole brain thinker per team is essential to help bridge different mental modes. And more than seven team members make it exponentially more difficult to manage through the diversity.

Fred Keeton, chief diversity officer at Harrah's, uses this approach to solve complex challenges by building "diverse-by-design" teams composed of cognitively diverse members. With diverse-by-design teams, we can see a significant increase in creative and innovative output. This premise was at the core of Ned's initial research and has proven to hold true.

The fourth and final critical takeaway is that it only works when you use it. Thirty years later, we still hear people saying that they "don't do" a certain type of thinking or can't be creative because they are "not right brained."

Remember, It's not right versus left; it's your whole brain. You just need to learn how to access and use it. To be efficient and creative, seek out people who might make you uncomfortable but who will provide a different perspective. It may turn out to be the winning differentiator.

In practice

Several years ago, a global pharmaceutical executive challenged his learning and development team to reduce the time to train new sales reps from 24 to 12 months. They used a framework of whole brain thinking to make it happen.

The initiative began with an analysis of the mental demands of the sales function as mapped across the whole brain model. After discovering their own thinking preferences (via the

To get the most out of our organizational brainpower, we must start by using the whole brain framework as a lens for assessing strategic initiatives and clarifying challenges. Our research has shown that better problem solving involves all four quadrants of the Whole Brain Model.

HBDI), sales reps learned how to apply that knowledge to mastering the job and making productive connections with clients.

In addition, sales coaches learned how to adjust their thinking styles to better serve the needs of the reps they coached, and the learning and development team used whole brain learning design to ensure that training and reinforcement tools would effectively engage the various thinking preferences in the group.

The company not only achieved but surpassed its goal, reducing job mastery time to seven months. During a period of three years, it also recorded increased sales revenue and improved results in its key sales process metrics. What performance objectives in your organization would benefit from this type of improvement?

The era of and

Now more than ever, our environment demands that we embrace the concept of *and*, not *or*, to be successful. There is power in the paradox that comes from diverse perspectives. Whole brain thinking gives us that "killer app" to put them to work and deliver results.

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lens for assessing strategic initiatives and clarifying challenges. Our research has shown that better problem solving involves all four quadrants of the whole brain model.

Next we must design learning and performance programs to meet strategic objectives based on how our customers' (both internal and external) brains work by applying a whole brain approach.

Finally, as a profession, we have to learn to think like business leaders, serving our organizations using our whole brains, if we hope to have a "seat at the table."

What does whole brain thinking have to do with performance?

Everything! Ignore it at your peril. **T+D**

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Ann Herrmann-Nehdi is CEO of Herrmann International. She is currently conducting research on thinking skills required for 21st century leaders and leading the global organization to create a better world through whole brain thinking. Her upcoming book is titled *The Era of And*; Ann@hbdi.com.

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