

A Whole Brain Approach to Teaching Communication: Using Narrative in the Art of Persuasion

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Buccaneering is an excellent metaphor for whole-brain learning, learning spurred by an insatiable “roving” curiosity. “Audacious and intellectually passionate,” *buccaneer* scholars set out on quests for treasure less concrete than gold, but they seek wealth just as valuable: “knowledge, skills, great secrets, connections with other ends, and an ever more powerful self” (Bach, 2009).

Persuasion Through Narrative

An instructor’s goal is very often to persuade—to persuade students to listen and to consider new ideas and information. Persuasion is, in fact, a large part of daily life. Deirdre McCloskey, a well-known economist, writes in the *American Economic Review* that 28% of the U.S. gross national product is created in one way or another by persuasion and that stockbrokers, attorneys, ministers, psychologists, and marketers are all in the business of persuasion (McCloskey, 1995). And what is one of the most powerful means of persuasion? Larry Prusak, an independent consultant who formerly worked with IBM Global Services, writes that about 60-70% of persuasion occurs in the midst of storytelling (Brown, Denning, Groh, & Prusak, 2005).

Rives Collins, a professional storyteller and associate professor of theatre at Northwestern University, writes, “Everything you tell is a story. If that is true (and I believe it is), storytelling becomes a vehicle for discovering who we are, for making sense of our world, for enhancing our learning/teaching, and for plain old fun!”(1997). Everyone loves a good story, including students, and scientists now know that most decision-making does not occur based on conscious, logical reasoning but, rather, on intuitive thinking, which is highly creative and associative (Denning, 2007).

For example, an instructor in a communication course might begin a class with an intercultural PowerPoint presentation: “Please open your text to p. 242 and then look up here at the following essential characteristics of successful verbal communication in most South American countries; you will see they are very high context...” The brightest and most rested students may remain attentive, but many will slip into partial attention at seeing the list on the screen. In contrast, the same instructor might enter the classroom, assume a relaxed sitting position on the desk, and begin to relate a true story:

Last month, an old friend of mine called one evening and asked to go out for a few beers. We got together and he confided that he had just lost a large contract at a time during this economic crisis when his company was making cutbacks. You see, my friend works in distribution for Mars Candy, and he had just flown to Rio de Janeiro to complete a supply negotiation. During the flight he reviewed business etiquette for South American countries, not realizing that Brazil’s Portuguese traditions vary slightly from other Latin American countries. He arrived for his first meeting cheerful and warm, dressed in a casual suit, and made a point to

lightly touch each new acquaintance on the arm as introductions were made. He felt he was making a good impression; after all, he understood the importance of friendly, tactile greetings; of establishing relationships before doing business; and of always accepting offered drinks, never pointing, and feeling free to interrupt to offer creative input and show interest. He simply didn't realize that Brazil, for all its warmth, is a fairly formal, proper country, whose business associates place high emphasis on formal suits, initial restraint in touching, and extreme respect for hierarchy. He was quite surprised when his Brazilian host became reserved and closed the meeting early.

In this second situation, most, if not all, students will remain attentive at the unspoken invitation to enter into a tale; and the same would be true in business: a supervisor in a strategic planning meeting could stand in front of employees and talk about the responsibilities involved with new technologies and forecasting tools, but telling a story first would give much more meaning to the new technologies. Showing or telling a story provides a rich complexity to an idea; it offers a kind of ambiguity that fosters deeper thought and constructive discussion (Simmons, 2007). James Bach writes, "Any explanation or description we ever tell or hear is a story. Every fact is either a story or it's embedded in a story. Science is stories. History is especially a story.... I read explanations, perhaps an explanation of how a transistor works, the history of Oriental rugs, or how Sargon of Akkad rose to power. What I'm reading is not reality; it's a story" (2009).

Because people enter readily into a story and because stories stir the emotions in a persuasive manner, sharing stories that every student can relate to in some way can be an extraordinary educational tool and has a very appropriate place in our university courses—in particular, university communication courses. Teachers in business communication can use this powerful tool in two ways: they can enhance the student learning experience in the course, while also creating a heightened sense of classroom community; and they can better prepare these students to develop the skills needed to tell their own stories once they are in positions of influence and leadership themselves. Storytelling has a very important place in the corporate workplace and should, therefore, be taught in business communication courses as a practical skill to be developed and implemented by anyone entering into a corporate position, and especially to those with the goal of assuming leadership positions.

Whole-Brain Approach to Teaching

Education normally centers on logical thinking processed in the left hemisphere of the brain, often at the expense of feelings. Listening to narrative requires the use of the right hemisphere, as well. An instructor who consciously activates both the left and right hemispheres of students' brains through the use of narrative understands that feelings are an important part of the learning equation and makes use of one of the "fundamental sense-making operations ... [one] both peculiar to and universal among human beings" (Lodge, 1990). Denning writes, "One reason ... why narratives permeate our lives and understanding is that resorting to narrative is the way in which we have learned to cope with our world of enormously complex phenomena.... Why storytelling? Nothing else works" (Denning, 2001).

Collins warns that at times listeners might experience some anxiety when stories are used to engage the whole brain because the modern educational system tends to exclude emotions from critical reasoning; the result is that welcoming emotions into the learning process may feel new and different. However, he also points out that stories do not so much bring emotions into the equation as they simply give the

listener access to them. In his words, “People float in an ocean of data and disconnected facts that overwhelm them with choices.... In this ocean of choice, a meaningful story can feel like a life preserver that tethers us to something safe, important, or at the very least more solid than disembodied voices begging for attention” (Collins, 1997).

An Overview of the Whole Brain

What is the process by which the use of narrative activates both hemispheres of the brain? A brief overview of the brain and its components, based on the cutting edge work of Paul Maclean, neuroscientist and long-time head of the National Institute of Health’s Department of Brain Evolution, will be helpful to laying the foundation for understanding this process.

The first area of the human brain to develop is the reptilian system, also called the hind brain or cerebellum. The reptilian system controls the body’s vital functions and is involved with ritual, habit, and deception. It gives humans awareness of an outer world (Pearce, 2007).

The second portion of the brain is the limbic system, the old mammalian brain or forebrain. This “emotional brain” processes relationships and gives humans awareness of their interior world and feelings about the outer world (Pearce, 2007).

The third part of the brain to develop is the cerebrum, the neocortex or the new mammalian brain, divided into the left and right hemispheres, which communicate via the corpus callosum. The cerebrum contains the frontal cortex (lobe), as well, and supports speech and sophisticated thought and determines appropriate behavior (Pearce, 2007).

The fourth area of the brain to develop is the pre-frontal cortex (lobe). There is current scientific debate concerning the main function of this area, once called “the silent area,” but the consensus seems to be that this area excites or inhibits other areas of the brain (Pearce, 2007), which means it builds “affect-regulation, the lifelong ability to regulate our emotional reactions, control our impulses, or moderate the survival reflexes of our ancient reptilian system” (Schore, 1994). Paul MacLean calls this area “angel lobes” or the seat of “love, compassion, empathy, and advanced intellectual skills” (1990). The pre-frontal cortex grows in cellular structure only after birth and ends its growth as the largest structure in the brain.

When a young person reaches age 15, all parts of the brain except the prefrontals myelinate, (which means the long axons involved in neural communication become encased in a fatty protein which blocks hormones involved in neural *pruning*). The myelination makes all learning and development up to that point in time permanent. So at this age, around the 15th year, most of the brain matures; however, the prefrontal region begins a secondary growth spurt, which peaks at about age 18 and continues until age 21-25. This is a very critical time for the development of empathy, creativity, and critical reasoning skills (Pearce, 2007). The majority of this growth occurs exactly during the standard college years, which places an important responsibility on the college instructor. During the college years, every student’s brain is “re-wiring” and growing at a dramatic rate in this area which allows humans to feel most connected with each other.

Specific human activities involve particular lobes of the brain that specialize in particular actions, but during an activity the entire brain is involved indirectly and supportively; all areas of the brain function as an integrated unit, and this is certainly true for the student processing narrative. Both the left and right hemispheres of the cerebrum and the amygdala engage during this activity (Pearce, 2007).

Scientists have traditionally viewed the left hemisphere as controlling linear, logical function; and the right hemisphere as controlling nonlinear, creative function (Weissman, 2003). But Joseph Chilton Pearce, author of many books on human development and international lecturer on the topic, writes, “Many assumptions concerning left/right hemisphere differences, so popular over the past twenty years, may be, at best, half-truths” (2002). Elkhonon Goldberg, clinical professor of neurology at New York University School of Medicine, believes the real difference between the right hemisphere and the left hemisphere is that the right hemisphere tends to handle new material, while the left hemisphere acts as a “repository” of developed, stable knowledge structures (2001).

The right hemisphere has many connections to both the lower brains, and when new learning becomes established, the right hemisphere then passes this information via the corpus callosum to the left hemisphere. The left hemisphere requires constant feedback and cross-indexing with the right hemisphere and works in conjunction with the prefrontal cortex, analyzing and synthesizing information, moving into “logical, analytical, associate, and creative” capacities without the restraints of instincts and reflexes of the more primitive parts of the brain (Pearce, 2002, 2003). The right hemisphere is holistic, adaptive, and creative, determining what to do in new situations. It excels in associate thinking, using the body’s instincts and memory systems and then passing this information to the physically dominant left hemisphere, which acts on it. We constantly depend on feedback from the reptilian and old mammalian brains communicating through the corpus callosum to the right hemisphere to the left hemisphere (Pearce, 2003).

The amygdala, part of the primitive limbic system, stores emotional memory and compares the emotionally familiar with new information. From birth to age 3 it stores all negative experiences and from that point on will compare current events with this “negative template” (Pearce, 2007).

The following chart (Table 1) shows the overlapping of growth spurts and shifts in the concentration of brain development.

Table 1. Human Brain Growth spurts and Shifts (Pearce, 2007)

	Prelogical			Operational		Post Operational	
	Birth	Age 1	Age 4	Age 7	Age 11	Age 15	Age 21-25
Reptilian System (Hind Brain)							
Limbic System (Forebrain, contains the Amygdala)							
Cerebrum: Right Hemisphere							
Cerebrum: Left Hemisphere							
Cerebellum (Part of the ancient Reptilian System)							
Prefrontal Lobes (working along with the Cerebellum)							

How A Story Is Processed By the Whole Brian

When a student listens to a story, his primitive limbic system, the amygdala, the part of the brain having to do with survival, becomes engaged and processes concrete images. These images ignite sensory memories and represent reality much better than numerical statistics on a chart or lines on a graph do. The limbic system deals in sensory response rather than abstract symbols for reality (Simmons, 2007), so the student becomes physically and mentally *tuned in* and responsive. As he hears and processes the new story information in the right hemisphere, he is thinking of his own concerns, desires, fears, accomplishments, failures, and dreams and joins into a “culture creating community” (Bruner, 1986).

This identification process is critical to the long-term learning process (Villari, 2008). When the new information becomes established, the right hemisphere passes it to the left hemisphere via the corpus callosum, where it can be analyzed and synthesized with the help of the pre-frontal lobes and without interference from the more primitive brains. At this point the student’s inner voice has generated a new story or insight based on his intelligence and personal context, and he now owns new insights because he has created them through a whole-brain process. The student feels empowered and may even remain unaware of having identified with the characters in the story. This is learning at its best: the listener gets inside an idea, feels the idea, creates his own idea, and remembers the new information.

Analogy and metaphor often work initially at the unconscious level; metaphors can function as “mini-stories that help frame complexity into a familiar package” (Simmons, 2007), and students also find they can remember and process related course material better because they have placed themselves within the context of what is being taught. This process becomes even more productive when students are asked to become active in telling part of the story, because in “helping to tell it, they experience whole-language goals of choice, ownership, and relevance” (Goodman, 1986).

By telling a story, an instructor engages students' whole brains, both their thinking and feeling, and both their survival instincts and their higher critical reasoning skills (Collins, 1997). Telling a story is a powerful means of persuasion.

Denning calls effective attention-grabbing stories "springboard stories." These are tales that invite the listener into a world in which a leap in understanding can occur to allow for change. The impact of the story has less to do with imparting information as with serving as a catalyst for understanding. But not every story invites this springboard effect. Denning writes that in his experience such stories are told by a single protagonist with a problem that works metaphorically for an issue the listener has, as well. Such a story concerns the deeper meaning of the "way the world is—or could be—ordered. The storyteller must feel this in the first place, and feel it intensely; otherwise the audience will never see it or feel it" (Denning, 2001).

Negative springboard stories grab attention, but they do not necessarily stimulate action. Stimulating action is best accomplished by giving space to the listener during and after the springboard story to allow for an emotional response and for the inner voice to establish a connection between the listener and the character(s) in the story. The storyteller can accomplish this by not becoming too involved with details. The story is told simply and briefly to allow the listener to make conceptual leaps and generate ideas for *change* (Denning, 2001). When the listeners make these conceptual leaps, they then experience a desire for change—for gaining new information and putting new ideas into action. Denning writes,

Quickly stimulating desire for a different state of affairs is the most important part of the communication: without it, the leadership communication goes nowhere. It's also the piece that is most consistently missing in the communications of aspiring leaders.... The key insight is that if the listeners are to own the change idea, they have to discover it for themselves in the form of a new story (2007).

At this point the listener is ready to hear reinforcements for reasons to elicit change, but if the instructor gives these reasons before an emotional connection is established, they will likely not be heard. The perceptive storyteller waits for the listener to be ready to receive reasons; only when the listener is emotionally connected to the springboard story should the storyteller relate the specific reasons for change. In doing this, the teacher should include specific possibilities of how a situation will look after a change; how the change will happen, outlining simple steps relating how to get from point A to point B; and why the change will work well, relating causal mechanisms. Positive stories of change work well to follow up on stories presenting problems (Denning, 2007). Following this sequence creates a powerfully persuasive situation.

Other Benefits of Narrative in the Classroom

Storytelling has more benefits than being persuasive and allowing students to put information into long-term memory. Hearing a story with another person also creates a unique kind of bonding experience. Sharing internal imagery requires the use of the mid-brain and right hemisphere, which are exactly the parts of the brain used primarily in creating personal relationships (Pearce 2003). Today's students can be uneasy with intimacy and candor in the classroom. They may have trouble dealing "with genuine intimacy because of a lifelong habit of preserving a secret inner self inside a larger outer personality

made up of artificial bits and pieces of behavior borrowed from television or acquired to manipulate teachers” engaging in a left brain method of teaching (Gatto, 2005; Pearce, 2003).

Second, hearing a story stimulates our capacity for creating internal imagery. Pearce notes that “the mechanism of TV itself, as an imagery counterfeit, is what kills intelligence and grounds a populace in sensory-motor modes of thought. Intellect can still develop, but this will be an intellect devoid of intelligence” (2003). The average child in the United States views 6000 hours of television before the age of 5. Pearce also writes, “Stripped of his capacity to create internal imagery, vital to survival itself, he becomes compulsively attached to TV, since TV is the only source of imagery then available, and we cannot stand only bare, concrete material reality. Television is naturally addictive—not on a psychological basis but in a biological one” (2003).

And, finally, hearing a story is playful. Pearce believes teachers would

do well to reconsider our talk about a failure to develop right hemisphere thinking in our schools. [The right hemisphere’s] classroom is the living earth, its teaching material matter itself and models of intuition. The curriculum for this development is built within us, and has an explosive, universal longing for expression. And its expression is through play and storytelling. . . (Pearce 2003).

How important is play to the classroom, to a boardroom, or to a human being? Pearce states,

I [do not] doubt that play [is] the very reason for life... Play is living itself, nature celebrating herself, with no explanation or need for justification.... Joy and pleasure are the bricks and mortar of physical, psychological, social, and spiritual development and the developing brain must experience joy and pleasure if the complex integration of sensations is to take place (Pearce, 2007).

Organizations have become increasingly aware of the power of persuasion in storytelling, so much so that narrative is now recognized as playing a highly significant role in the 21st century economy. Stephen Denning, formerly Program Director for Knowledge Management at the World Bank, writes, “In fact, we have come to see that narrative has a hand in practically everything that happens of any significance in human affairs” (Brown et al., 2005).

John Taylor Gatto, former teacher in New York City’s public schools for over 30 years and recipient of the New York City Teacher of the Year Award and the New York State Teacher of the Year Award, writes,

I’ve come to believe that genius is an exceedingly common human quality, probably natural to most of us. I didn’t want to accept that notion—far from it: my own training in two elite universities taught me that intelligence and talent distributed themselves economically over a bell curve and that human destiny, because of those mathematical, seemingly irrefutable scientific facts, was as rigorously determined as John Calvin intended. The trouble was that the unlikeliest kids kept demonstrating to me at random moments so many of the hallmarks of human excellence—insight, wisdom, justice, resourcefulness, courage, originality—that I became confused. They didn’t do this often enough to make my teaching easy, but they did it

often enough that I began to wonder, reluctantly, whether it was possible that being in school itself was dumbing them down (Gatto, 2005).

Teaching to the left hemisphere only is exactly what Gatto refers to as *dumbing down*. One very large step in the direction of facilitating open and passionate *buccaneer* learning, in providing the setting for natural genius to manifest itself in our students, and in creating a setting for *play* would be to actively engage their whole brains in the classroom and in our assignments. Sharing meaningful narrative is one easy way to accomplish this.

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