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Lessons from Advancing Neuroscience*

Raymond L. Forbes Jr., Ph.D.

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# Whole-Brain Coaching and the Merlin Effect: Lessons from Advancing Neuroscience

BY RAYMOND L. FORBES JR., PH.D.

*: The legend of King Arthur provides an excellent perceptual lens for viewing the untapped performance potential of present-day coaching clients. Arthur rose to greatness with the help of the wise wizard, Merlin, possibly one of one of history's first successful executive coaches. As a point of departure, this paper uses the release of Arthur's enchanted sword, Excalibur, from the stone in which it was magically embedded, as a metaphor for the release of client potential through the coaching process.*

*Continuing advances in neuroscience offer practicing coaches the promise of discovering new magic in working with clients. Science fiction writer Arthur C. Clark once remarked that any sufficiently advanced technology is indistinguishable from magic. One such neuroscience-oriented approach, whole-brain coaching, is discussed in this article.*

## PROLOGUE

In the legend of King Arthur, Arthur becomes a king only after he is able to pull the enchanted sword Excalibur from the stone in which it was magically imbedded. Arthur succeeded only after many others who believed themselves worthy of being the king had tried unsuccessfully to release the sword from its sheath of solid rock. Ultimately, Arthur alone was able to accomplish the feat. Even then, the future Pendragon king needed the helpful guidance and encouragement of the wise wizard, Merlin, to free the imprisoned sword.

In freeing Excalibur, Arthur was able to demonstrate with ease a prowess that he did not even know that he possessed. Nor was he entirely conscious of the implications of what he had done. In the legend, the release of Excalibur set in motion a chain of events that eventually turned a naïve boy into a mighty sovereign. Throughout it all, behind the scenes, the enigmatic Merlin acted as Arthur's benefactor and coach.

The story of Arthur, Excalibur and Merlin provides an excellent metaphor for the unused performance potential of our coaching clients. For many of us, hearing the ancient tale of the powerful sword set free from the stone evokes a sense of personal wonder at what might be other unique capabilities inherent in the most obscure of people. This imposing image of the restoration of the freedom of movement for the entrapped blade is highly symbolic for coaches. The release of the sword becomes emblematic of how we can enable the freeing of our client's heretofore imprisoned and unexpressed capabilities through the coaching process.

The metaphor of the sword also raises some difficult questions for coaches, such as: What is performance potential? How can it be actualized through the coaching process? And what modern coaching magic can be found in the advancing knowledge of the neurosciences? In addressing these questions, this paper will consider the lessons of the Merlin-as-mentorcoach legend, discuss the release of client potential, explore the idea of whole-brain coaching and peer into the misty future of coaching.

### WHAT IS PERFORMANCE POTENTIAL?

In the myth of King Arthur, actualizing the power of Excalibur required a work performance. Work performance is a demonstration of achievement. Like pulling the sword from the stone, it is an action process. Performance contains mental, emotional, and behavioral components aimed at the accomplishment of goals that are individually or socially valuable. Different goals seem to require different kinds of performance. Over our life's history we are apt to notice that we can perform some types of tasks with ease and grace. Alternatively, and at the polar extreme, other kinds of tasks we perform only with extreme difficulty or, perhaps, not at all. As coaches we often find ourselves heavily engaged with our clients in setting and reaching challenging personal and performance goals.

*The release of the sword becomes emblematic of how we can enable the freeing of our client's heretofore imprisoned and unexpressed capabilities through the coaching process.*

Potential, on the other hand, is a much more ambiguous concept. It is concerned with a promise of performance at some unspecified future time. Potential, it appears, is like a holographic model for future greatness located somewhere in the brain and yet to be fashioned in reality. It might be likened to the vision of King Arthur's future greatness that occupied Merlin's mind while Arthur was still growing up as the gangly boy, disparagingly called, "Wort." How often do we as coaches see capabilities and potentials that are unrecognized and not yet capitalized upon by our clients?

### HOW CAN COACHES HELP ACTUALIZE CLIENT POTENTIAL?

Individual and organizational researchers have long been interested in the question of how to actualize human potential. One of the founders of the field of Humanistic Psychology, Abraham Maslow, wrote extensively on the subject and argued that our society's reference point for human performance was greatly misplaced. Maslow believed that the illness model (defining normalcy by comparing ourselves to the sickest members of our society) was a primary source of the misperception of our potential capabilities.

Maslow also felt that each of us experienced an internal push toward actualizing our potential, an impulse to release our own buried sword from the stone. Today, psychologists might term this internal self-shove toward realizing our potential, self-efficacy. The long-time recruiting slogan of the U. S. Army, "Be all you can be," seems to reflect the idea of self-efficacy well. As coaches, many of us have seen first hand the positive and negative consequences of this compelling achievement motivation in our clients.

How much different could we be, Maslow wondered, if our benchmark was, instead of the poorest performers, the Olympic gold medal winners of the world? In this case, the comparative reference point becomes positive rather than negative. It reframes our thinking to a wellness standard for normalcy using the best performers our society has to offer as the new point of reference. Excellent coaches seem to hold a positive image of their clients' untapped potential and to find ways to enable these individuals to release the very best in themselves.

Psychologist Mihaly Csikszentmihalyi has studied excellent performers for many years. He determined from his research on very different kinds of people and performance situations that there is a state of optimal experience. He called this state of maximum performance "flow" or "being in the zone." Flow is an internal condition where seemingly effortless and effective performance occurs naturally. This particular mental state seems to happen most frequently when the challenge of the task we have undertaken exactly matches our ability to perform it. Modern brain imaging techniques such as the use of Functional Magnetic Resonance Imaging (or fMRI), Computed Axial Tomography (or CAT scans) and

Positron Emission Tomography (or PET scans) offer the promise of graphically displaying what our brains are actually doing when we are in optimum performance states.

### **MODERN COACHING MAGIC**

Modern brain researchers, reflecting on the brain's immense potential, have called it "the three-pound universe." One distinguished neuro-anatomist, investigating the brain's complex functioning, christened it "the magic loom." On a more practical level, our increasing knowledge of the brain's capabilities and working processes promises the Executive Coach new tools for understanding and working with clients.

### **NED HERRMANN'S BRAIN RESEARCH**

Ned Herrmann, entrepreneur, brain researcher and former head of the General Electric Management Development Institute, has extensively explored thinking style preferences. Herrmann believed that thinking style preferences arise out of the natural development and organization of the brain. He (Herrmann, 1988) translated the results of years of brain dominance research into an actionable means for developing managerial potential called the Herrmann Brain Dominance Instrument or HBDI. (Herrmann, 1988)

In the course of his research, Herrmann identified four major thinking style quadrants. Each quadrant is classified with a letter and a color. For example, the blue A quadrant style thinker emphasizes facts and analysis; the green B quadrant thinker, order and sequence; the red C quadrant thinker, feelings and human communications; and the yellow D quadrant thinker, imagination and synthesis. In this scheme, King Arthur would likely show up as mostly C quadrant and Merlin as primarily D quadrant.

*Potential, it appears, is like a holographic model for future greatness located somewhere in the brain.*

Herrmann was initially drawn to brain research in an attempt to better understand his own widely divergent interests. He graduated from college with a dual major in physics and music and later became an accomplished engineer, opera singer, painter, and sculptor. While working in management development at General Electric, Herrmann created and tested the HBDI an instrument to measure thinking styles. He also arranged for its validation studies by an outside statistician. The instrument has now undergone continuous refinement over a 30-year period. The HBDI currently uses a 120-question survey form to measure thinking style preferences. A proprietary computer program transforms the survey responses into graphic and written displays of preferred thinking styles.

Herrmann asserted that thinking style diversity is a natural global phenomenon. An analysis of his international data set of over 1 million surveys suggests that the world of individuals represents a composite whole brain or one in which the four basic styles are approximately equal in preference. He proposed that a greater understanding and use of his whole brain approach could foster new insights into unlocking human potential.

### **A MODEL WHOLE-BRAIN COACHING PROGRAM**

In an educational program created with the whole brain in mind, Franklin University in Columbus, Ohio, has taken up the challenge of enabling the release of the untapped potential in its students. Seeking an integral approach to business education, faculty members in Franklin's Ross School of Management and Leadership have incorporated whole-brain coaching concepts, as a means of releasing student potential, in the design of their Masters in Business Administration (MBA) curriculum.

### **STRUCTURE OF THE PROGRAM**

Typically, prospective students first become aware of the nature of the coaching program at

one the regularly scheduled MBA information sessions or through word-of-mouth from existing or graduated students, employers, friends, family members, adjunct faculty members, or current coaches. Using a set of required and desirable criteria supplied by the faculty, each incoming MBA student identifies a local businessperson or community leader as a volunteer coach. The coach agrees to provide from two to four hours per month of coaching services over the duration of the 17-month program. The focus of the coaches' efforts is to assist their students in realizing both their professional potential and their academic potential.

Franklin has involved over 2,000 coach-student pairs since the inception of the whole-brain coaching effort in 2002, including about 400 as part of the on-line MBA program. Coaches employ a wide variety of methods to communicate with their students including face-to-face meetings, telephone conversations, electronic mail, and fax exchanges. Various academic linkages, in the form of specific course assignments, have been built into the MBA program along with the creation of a goal-oriented, professional development plan. These assignments require input or consultation between student and coach. Coaches become involved with assisting students in monitoring progress toward planned goal achievement, better understanding their organizational situations at work and their career aspirations.

All MBA students are required to take the HBDI online as part of their initial academic work. The students will re-take it again in their final course and be asked to reflect and comment on any changes that are detected. One study of pre- and post- administration of the HBDI to Franklin MBA students, published in Herrmann's (1996) *Whole Brain Business Book*, showed a statistically significant shift from left brain to right brain functioning. MBA coaches also take the HBDI as one element of the two required and two voluntary session coaching program. Additionally, coaches receive specific training on how to use the HBDI as a coaching and individual development tool.

Full-time graduate school professors conduct the faculty-designed six -hour to eight hour coaching program. Faculty members, externally -certified both as coaches and HBDI practitioners, are also available to provide the new MBA coaches with advisory support in their coaching roles. These faculty members are available to provide the coaches with advice and assistance related to difficult-to-solve interpersonal, academic, or professional development issues that might arise in the course of their coaching relationships with the MBA students. The coaching program director, a licensed clinical counselor, is also available to provide clinical referrals if needed. Additional tools available to the MBA coaches include: a coaching manual, a coaching program administrator, email communications, on-line training, a web site and a database.

#### Use of the Herrmann Brain Dominance Instrument in Whole-Brain Coaching

Thus far, the HBDI has proven to be a powerful tool for building rapport with clients and identifying possible strengths and weaknesses in the coach-client relationship as well as for enhancing coach credibility. The simplicity of the HBDI comparison results, colorfully and visually displayed, tends to capture and hold the attention of both coaches and clients alike. The instrument's primary graphic, in the form of a simple, four-sided figure imposed on a bulls-eye target background and imprinted on a transparency, makes it easy to overlay coach and client results. The visual comparison can display individual zones of coach and client comfort, areas of likely individual discomfort, areas of mutual comfort, and areas potentially hidden to both coach and client. Additionally, four basic coaching styles are identified and described in some detail and a set of coaching questions organized by HBDI quadrants is provided.

As part of the coaching evaluation process, surveys and interviews have been conducted

with MBA coaches and students. Related to his experience in using the HBDI comparison process, one MBA coach stated, "It draws a picture you don't get anywhere else." A second interviewee reported, "The HBDI process was wonderful, it is something you can sink your teeth into." And, one of the coaches nominated by his student for a coaching award noted "I wish I had done it myself, actually, in college."

### EMOTIONAL INTELLIGENCE IN COACHING

Neuroscience researchers have identified a process called "downshifting" that causes brain control to shift under situations of extreme threat from the cerebral cortex to the more primitive limbic system. This shift from higher to lower brain centers results in the oft mentioned flight, fight or freeze response. In our evolutionary development this control shift toward the emotional brain centers was likely a highly useful adaptive reaction to a saber toothed tiger or a mayhem-minded Neanderthal. However, these instinctive emotional-brain reactions of running, fighting, or becoming immobilized, are, however, mostly inappropriate for a contemporary executive dealing with an angry boss. Coaches can teach delaying techniques that allow the neuronal circuits serving the frontal lobes of the brain sufficient time to consider the impact of powerful emotions elicited by downshifting prior to their actual expression in reactive behavior.

*Intelligence, rather than a genetic endowment, is actually the ability of the brain to make predictions about the future.*

Emotional intelligence has also been identified by psychologists and management researchers as a critical ingredient in executive success. Several different types of assessment instruments are now available to the coach to enable clients to self-assess their emotional intelligence. One such instrument used within the Franklin MBA coaching specialization is called the EQ Map (Cooper & Sawaf, 1996).

The map is organized around five categories of emotional intelligence: current performance, literacy, competencies, values and beliefs, and outcomes. The instrument questions are further subdivided into 21 scales, each scale is hierarchically ranked in order of self-perceived proficiency. Coaches, using the map's graphically displayed results, are able to assist clients in identifying typical emotional patterns within themselves and in their interactions with others. Then, after discussion of the meaning and implications of the emotional patterns, clients are helped to develop action plans to enable them to better cope with emotionally charged situations.

### FUTURE IMPLICATIONS FOR COACHING

Brain-quadrant-generated perspectives, with a particular emphasis on their effects on people within and without business organizations, are just beginning to be explored. An assessment instrument (Forbes, 2005), called the Lifecycle Metric, that combines an individual's preference for a particular stage in an organization's life cycle with brain quadrant preferences, is now in the testing stages. The instrument is designed to provide a client with information on his or her preferences for the start-up, growth, maturity, renewal or ending stages of the organizational cycle with their preference for seeing the world through Competitive, Systems, Collaborative, or Strategic lenses.

The recent work of computer-scientist and brain researcher, Jeff Hawkins, also poses some intriguing possibilities for coaching. Hawkins, in his 2004 book, *On Intelligence*, Hawkins suggests that intelligence, rather than being a genetic endowment, is actually the ability of the brain to make predictions about the future. This contradicts the long-held notion that behavior is the true measure of intelligence.

If Hawkins' idea is at all true, then we coaches may need to take a whole new look at our assumptions about our clients and how they apply their intelligence to solving their own problems. In particular, leadership coaching may require more forward thinking, future scenario-based approaches. Here, the work of futurists such as John Peterson (1999) regarding how to anticipate future surprises using the concept of "wild cards" may be particularly appealing.

*We are entering a new organizational period where artistic and "right-brain" abilities will determine who gets ahead and who doesn't.*

Science writer Steven Johnson has proposed that the mind is an emergent property of the brain that results in a whole that is somehow greater than the sum of its parts. Johnson suggests that human brains are designed to love and connect as much as they are constructed to fight and flee. He refers to the work of National Institute of Health researcher Paul McLean's triune brain theory to help explain the complexity of how we think, feel and act. McLean suggested that we actually have three brains in one, a primitive reptilian brain (brain stem and cerebellum), a mammalian brain (limbic system), and a human brain (neocortex). This concept of the tripart brain idea may better prepare us as coaches for working with the sometimes perplexing and difficult-to-explain thoughts and actions of our clients as their different brain centers vie for control.

Finally, business writer Daniel Pink paints a picture of how the world of organizations is and will continue to profoundly change. In his 2005 work, *A Whole New Mind*, Pink describes the societal movement from the Information Age to the Conceptual Age. Pink further develops the idea that the future will belong to individuals with a different kind of mind. He believes that we are entering a new organizational period where artistic and "right-brain" abilities will determine who gets ahead and who doesn't. Individuals with the more traditional "left-brain" type of brain dominance will be less successful. If Pink's predictions are at all near the mark, coaches will be seeing a new kind of client with issues different from those of their predecessors.

### **PUTTING IT ALL TOGETHER**

This article has defined performance potential in terms of its possibilities for demonstrating future goal achievement. Several perspectives on actualizing potential were discussed including the work of Maslow and Csikszentmihalyi. Coaching and associated new developments in brain research were identified as two possible means for releasing hidden potential.

*In modern terms, Arthur had learned to trust, respect and depend on his coach.*

Coaching and whole-brain thinking styles were further linked together in an especially-designed university MBA program. The HBDI-based training process for coaches was described in some detail. Additionally, Franklin University's MBA program was highlighted as an experimental vehicle for releasing student potential.

We have also explored the role of the brain in emotions and the concept of emotional intelligence along with their possible use in coaching situations. Several different views on the potential implications on coaching of neuroscience-related developments were explored. Throughout this paper the Arthurian myth was used as a metaphor for the Executive Coaching relationship.

At the end of the King Arthur legend, Arthur, wounded and dying, saddened at the decep-

tion of his wife and betrayed by his champion, Lancelot, returns Excalibur to the Lady of the Lake where it first appeared. Most of all, Arthur laments the loss of his trusted advisor, Merlin, and wonders how things might have been different if the wizard was still available to him. In modern terms, Arthur had learned to trust, respect and depend on his coach. Today, the field of coaching appears to be moving out of its gestation period into a very promising and stimulating professional adolescence.

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**Raymond L. Forbes, Jr., Ph.D.**

**Telephone Number: +1 614-341-6380**

**Email Address: forbesr@franklin.edu**

Dr. Forbes is a professor in the Ross School of Management and Leadership at Franklin University. He is a founding board member of the Graduate School Alliance for Executive Coaching, a licensed psychologist and a master personal and executive coach. At Franklin he is involved with developing innovative graduate business courses, training volunteer coaches for the MBA program and designing a specialization in executive coaching. Ray is also a U. S. Naval Academy graduate, a retired naval officer and a former Fortune 500 company executive for two corporations. Additionally, he has extensive experience as both an internal and external management consultant in the areas of strategy, organization development and leadership development.

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