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Brain Science and Organizational Coaching

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BRAIN SCIENCE AND ORGANIZATIONAL COACHING

Abstract

Purpose – To assess the current state of the art in the application of neuroscience principles to the field of organizational coaching

Design/methodology/approach – Qualitative research employing a review of the contemporary literature.

Findings- The research results indicate a potentially positive benefit for practitioners and theorists in the field of organizational coaching to learn about and apply findings from the discipline of brain science.

Research limitations/implications – Neuroscience research is a rapidly growing area with new results that tend to quickly obsolete current findings. The leading edge of the field is rapidly advancing with theory often greatly lagging practice. Additionally, coaching practitioners are often reluctant to conduct controlled studies in areas that impinge on client confidentiality and their flexibility in adapting to client needs.

Practical implications – The study offers new options to executive coaches undertaking challenging coaching assignments

Originality/Value – This paper provides both a practitioner and academic-oriented review of the literature on the research connection between neuroscience, psychology, and executive/organizational coaching. It also suggests areas in which additional research might benefit practice.

Keywords: executive coaching; neuroscience; emotional intelligence; brain science; neuroleadership

Research type – literature review and viewpoint

JEL classification:

O15 – Human Development

P46 – Education and Training

Introduction

Today life in many organizations in first and developing world nations can be characterized by its intricacy, convolution, almost constant disruptive change, and high levels of vagueness. Organizational theorists have even given this condition a descriptive name, calling it “VUCA” (Bennett and Lemoine, 2014). VUCA being an acronym for Volatility, Uncertainty, Complexity and Ambiguity. In elevated amounts, VUCA can result in organizational paralysis, reality disorientation, emotional fight or flight responses, and poor decisions under pressure.

As a consequence of VUCA, organizational members may find themselves in situations involving the need to cope with sometimes toxic concentrations of fear, uncertainty and doubt. Individuals within these unsettled organizations constantly seek to find their psychological, emotional, and physiological balance in an effort to combat the perceived threats evoked by the ever-altering social and technical landscapes.

Beset by frequently shifting internal and external forces, leaders are challenged to both deal with and influence the consequences of change acceleration. The dynamisms of change

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may act to upset the status quo and make planning difficult. These changes also impact the production and distribution of brain chemicals such as dopamine, serotonin, and oxytocin which, in turn, influence behavior either directly or through hormones such as cortisol. For example, Brann (2015a) suggests that the neurobiological effects of elevated cortisol reduce the ability to focus, oxytocin reduces cortisol levels, and unmet expectations can lower dopamine concentrations below normal baseline levels.

Additionally, conditions of rapid growth and decline may collapse or accelerate normal business cycles posing what appear to be insurmountable dilemmas and unreachable opportunities. These changes can also add significantly to the stress loads experienced by organizational leaders. Faced with such daunting states of affairs and their physical, cognitive and emotional effects, leaders may seek but be unable to find suitable assistance. The dilemma becomes how to develop workable ways to both personally and organizationally survive and thrive in spite of the existing circumstances.

In the past two decades a new discipline, variously called Executive and Organizational Coaching, has begun to rise into prominence as a means of assisting both individuals and organizational groups to achieve higher levels of competence and performance. The intent of Executive and Organizational Coaching is to provide a practical means of enabling individuals and groups to realize and apply more of their inherent potential. Initially, Executive and Organizational Coaching was used as a means to rectify existing deficiencies in individual performance. Currently, its principal use is mostly for developmental purposes as a means to access and utilize higher levels of potential and capability.

Coaching in its many forms is primarily a one-on-one or one-on-group interaction. It involves the coach taking on the roles of active champion for and benevolent confronter of the client. The coach behaves in ways that offer both challenge and support. The coach's armory includes diagnostic instruments, selective questions, rehearsal with feedback, active listening, behavioral modeling, and motivational statements.

Coaches attempt to act in ways to assist clients in resolving important issues and building skills that are important to them and to their organizations. Many coaches also hold a positive bias in that they assume that the individuals and groups that they work with possess both the incentive and the ability to successfully handle the problems and opportunities that they are currently confronting.

Research methodology

The intent of this paper is to assess the opportunities available to improve coaching practice through the incorporation of relevant principles derived from the field of neuroscience or brain science. Particular emphasis will be placed on the incorporation of the latest findings from the disciplines of positive psychology and neuroscience with a particular emphasis on brain function (Rock and Page, 2009). Therefore, the focus will be on applying brain science to coaching.

The principal research vehicle will be a qualitative analysis of the related professional literature with a specific attention on recently published sources. Synthesis of patterns and themes will also be employed.

Research results and findings

Findings

The application of brain science to coaching:

- Enables more effective developmental work with Chief Executive Officers (CEO),
- Offers useful techniques for handling dysfunctional clients
- Assists the improvement of the coaching client's emotional intelligence
- Enhances the quality of the coaching experience
- Fosters a more brain-friendly workplace.

Coaching CEOs

Brain researchers and management educators Ned Herrmann and Ann Herrmann-Nedhi (2015) have done extensive analysis of CEO results with their Herrmann Brain Styles Differences Instrument (HBDI) using a sample of 9,300 CEOs over a 14 year period. Their results indicate that CEOs tended to have balanced brain preferences among analyzing, organizing, personalizing, and strategizing options. Additionally, Forbes (2015) reports on a 2014 Financial Times study that showed CEOs minds were focused on human capital, customer, relationships, innovation, operational intelligence, and corporate brand and reputation.

Kershaw and Wade (2013) reported success in coaching CEOs using neurofeedback training employing an electroencephalograph or EEG. The EEG is an electronic device that measures and records the amplitude and frequency of brain waves via electrodes placed on the scalp. The reported overall effect was to reduce emotional state contagion and enable CEOs to gain the capacity to regulate their own physiology and improve both individual performance as well as those close to them. Csikszentmihalyi (2004) also reported on the results of an interview-based study with successful CEOs that elicited mind-focused elements.

Handling dysfunctional clients

Although somewhat infrequently described, psychologically dysfunctional clients provide a particular challenge to the non-clinically trained coach. Psychological and neuroscience-based research (Babiak and Hare, 2006; Kusy and Holoway, 2009; Sue, 2007; Lubit, 2004; and Neider and Schriesheim, 2010) offers a range of techniques for dealing with clients who present disruptive behaviors in the coaching setting. Suggested coping strategies range from control of the coach's own attitude, avoiding judgmental questioning, use of pauses, application of performance feedback from multiple sources, making unexpected queries, and, finally, referral to a psychotherapist.

Improving client emotional intelligence

Over the past few years Emotional intelligence has been a much discussed topic. Popularized by psychologist and writer Daniel Goleman, EQ or Emotional Intelligence is concerned with how we handle ourselves and others. Goleman (1998) has attributed 90% of leadership success to emotional intelligence. More recent publications (Kouzes and Pozner, 2010; Terrell and Hughes, 2008; and Wall, 2007) have made direct connections between EQ and coaching success.

Enhances coaching quality

Coaching quality may be boosted through the use of thinking style assessments for both the coach and client as well as the employment of heuristics arising from behavioral economics. Thinking style preferences are derived from brain research and provide advanced information on zones of potential coach-client compatibility, areas where differences may arise, as well as possible capacities that might be missed or overlooked by both coach and client.

Behavioral economics is a relatively new field of study that combines the disciplines of psychology and economics. The field focusses on the impact of psychological and emotional factors on the decision processes of individuals and organizations. Additionally, behavioral economics tends to be based on the results of pragmatic field experiments and is able to offer practical guidance to practitioners faced with compelling organizational issues.

Among the most popular thinking style assessments are: the Herrmann Brain Dominance Instrument or HBDI; PRISM, Benziger Thinking Styles, and Nardi's model. The HBDI (Herrmann, 1995) was derived from research on split-brain patients combined with work on brain evolution. It postulates four brain quadrants each of which demonstrates particular thinking style preferences. PRISM (Hazeldine, 2014) is organized around brain quadrants and particular neurotransmitters (or brain chemicals) associated with each cerebral sector. Personality theorist Benzinger (2013) also has developed an all-cerebral four quadrant brain assessment that is organized in a left-right, front-back fashion. Nardi (2011) developed his brain-based approach employing electroencephalographic studies that identified sixteen brain areas of concern.

Psychologist Richard Nisbett (2015) has also developed a set of helpful heuristics of potential use in the coaching relationship. Rooted in behavioral economics and statistical theory, these brain-friendly "rules of thumb" offer a means for both coaches and clients to become smarter decision-makers and problem solvers. Useful heuristics include the simple application of basic statistics such as the law of large numbers, regression, correlations and causation. Nisbett also supports heuristics derived from financial cost-benefit analysis, as well as the use of sunk and opportunity costs.

An example of a helpful heuristic is the application of the Pareto Principle, sometimes called the 80/20 rule. This heuristic is named after an early twentieth century economist, Vilfredo Pareto. Pareto studied the distribution of wealth in Italy. He found that a small number of individuals or about 20% of the population accounted about 80% of the country's total wealth. This rule has found wide relevance in the quality movement in Japan and the United States.

Fostering a brain-friendly workplace

Since coaching occurs in certain specific environmental contexts, particularly those related to the workplace, neuroscience can provide ideas to improve the interpersonal setting in which coaching transpires. Amy Brann, one of the pioneers in the application of neuroscience to coaching, has remarked that human engagement is a key to creating productive people in successful organizations. Brann (2015c) avers that with greater engagement of the workforce most organizations would be: happier, healthier, more fulfilled, more focused,

Garms (2014) suggests five ideas for improvement. The first three include: neuroplasticity (the brain's ability to rewire itself), the SCARF model of human motivation (Status, Certainty, Autonomy, Relatedness, and Fairness), and recruitment of the pre-frontal

cortex,(the brain area concerned with understanding, deciding, recalling, memorizing, and inhibiting). Garms' final two ideas focus on the ability of the brain to change (it can be considered a pattern recognizing device, one that takes the path of least resistance most often, equating difference to error, and it goes into alarm, threat and anxiety when error detection reaches a certain level),, and the use of mindfulness as a means of calming and stress reduction.

Research by psychologist Mihaly Csikszentmihalyi (1991) has investigated superior individual performance in a wide variety of workplace settings. Czsikszentmihalyi's concept of "flow" or optimal-state functioning appears to have value in the coaching venue. Amenable to many coaching situations, the conditions to achieve flow include: engagement in an activity with a clear set of goals, immediate feedback on performance, and striking a balance between opportunity and capacity.

Discussion

The new field of Executive and Organizational Coaching offers exciting possibilities for improving the performance of both individuals and organizations. Within the short time frame of its existence Executive and Organizational Coaching has experienced explosive growth both domestically and internationally. This accelerated expansion has also created a whole host of both problems and opportunities.

The coaching field is currently characterized by its great diversity. In working in such an environment, the ability to separate the meaningful from the meaningless is an increasingly valuable skill. At present, Coaching encompasses a wide variety of approaches, methods, and perspectives.

Several of the coaching approaches now in use have origins in other helping disciplines such as psychology, social psychology, counseling, and organization development. A review of the literature shows that a number of the approaches in use are the outgrowth of the work of single practitioners. There is also a parallel tendency to create new approaches on the basis of generalizing from anecdotal reports from single practitioners or from highly subjective individual case studies.

Different tools and processes are typically associated with different stages in the coaching lifecycle. For example, diagnostic instruments, such as personality inventories and ability assessments, are tools frequently used in the beginning stage of work with a client and situational role-playing is used more frequently in the middle stage.

Much of the present literature on Executive and Organizational Coaching describes the work undertaken by coaches as a planned sequence of events or activities. These events are often grouped into a time-based series of identifiable stages having a definable beginning, middle, and ending. Organizing the work of Executive and Organizational Coaches in this manner provides a way to meaningfully describe what has happened, what could happen, and what should happen. Stage-related thinking also offers a useful framework for the novice coach as well as potential check-points for more experienced coaches.

Although coaching assignments all tend to be a little different, the lifecycle approach is formed so as to recognize beginning, middle, and ending phases in a representative Executive Coaching assignment. A knowledge of coaching lifecycles can assist in distinguishing effective from ineffective coaching practices by understanding which kind of coaching actions are most appropriate for which particular coaching stage and which are not.

The popularity of Coaching appears to be rising. It has attracted the attention of both organizational leaders and academics in universities. And, there is a growing trend toward

basing coaching methods and tools in testable theory and research evidence (Stober and Grant, 2006; Wildflower and Brennan, 2011).

Additionally, there is expanding interest in the measurement of coaching outcomes on the basis of an objective assessment of coaching results. An umbrella label for this broad movement is Evidence-Based Coaching. Graduate schools (GSAEC, 2015) are increasingly becoming involved in theory creation and testing, conducting and supporting coaching-related research, training practitioners, and in developing standards and qualifications for practice.

Successful Executive and Organizational Coaches are able to simultaneously juggle content, process and contextual issues within a given coaching assignment. Content is the “what” or the substance of the coaching discussion; the particular issues, concerns and goals that the client wants to work on with the coach. Process is the “how” or the ways in which the coaching assignment unfolds.

Process relates to the activities that the coach and client choose to engage in to help reach the desired client outcomes. Context is the “why, where, and when” or the psychological, social, technical, economic, regulatory and physical environment in which the coaching assignment occurs. Context also includes historical and organizational cultural factors that may impact the coaching relationship.

At times coaches may encounter a client who operates in dysfunctional ways that inhibit the collective efforts to meet coaching goals. These behaviors may serve to disrupt, distract, or impede the coach’s work. Neuroscience findings offer the coach some practical ideas for working with these dysfunctional client behaviors and learn how to counter them.

Today, many Executive and Organizational Coaches rely on coaching by telephone or video conference as a supplement to face-to-face coaching or even as the primary means of delivering their coaching services. Employing the telephone as a coaching vehicle provides the coach with the extra challenge of picking up on and interpreting the client’s vocal cues without having the benefit of the associated visual ones. Advantages include easier scheduling, reduction in time lost traveling to remote coaching sites, and the ability of the coach to serve more clients.

Brain-based coaching

Executive coach Peter Bluckert was one of the earliest writers to connect psychology and executive coaching. Bluckert (2006) suggested a common range of themes that are addressed in executive coaching including: skills and performance, personal development, leadership, and meaning making. Since then, the application of principles derived from positive psychology and neuroscience to coaching has grown rapidly.

A number of authors have specifically addressed the psychology-neuroscience-executive coaching linkage including (Azmatullah, 2014; Brann, 2015b; Biswas-Diener, 2014; Brown and Brown, 2012; Peltier, 2010; and Pillay, 2011). Brent (2014) and Forbes (2014) have proposed a whole-brained approach to coaching that includes the systematic use of instrumentation, diagnostics and specific approaches for dealing with differing styles of thinking.

Neuroleadership

Today a significant amount of executive and organizational coaching is focused on the upper leadership ranks of an organization. Characteristically, leaders are perceived to have significant influence on and a disproportionate influence over obtaining desired

organizational outcomes. The implied logic is that more effective leaders will result in more effective organizations.

The term Neuroleadership was first coined by David Rock (Ghadiri, Havermacher, and Peters, 2011) and relates to how the brain and its underlying processes correlate with interactions between employees and their leaders. Neuroleadership has attracted both public and academic attention and represents a rapidly growing field of study. Recent authors include (Dickman and Stanford-Blair, 2002; Henson and Rossouw, 2013; Kryder, 2011; Pillay, 2011; Swart, Chisholm and Brown, 2015).

Conclusions

Some practitioners (Sate and Lilienfeld, 2013) have called into question the practical value of neuroscience; referring to it as mindless seduction. Currently the weight of the evidence seems to support the notion that, when properly and ethically applied, brain-based principles derived from neuroscience research provide positive benefits to the coaching relationship.

The essential ingredient in coaching remains the relationship between the coach and the client. Nobel Prize winning psychologist Daniel Kahneman (2011) has proposed there are two distinct systems that drive the way humans think. System 1 is primarily unconscious and operates quickly producing intuitions that influence thoughts and behavior. System 2 works more slowly and deliberately employing conscious rationality and logic. Presently, there does not appear to be much work being done on how these systems are triggered, conflict or cooperate, and operate to influence outcomes in the coaching setting.

Individuals appear to vary greatly in both their willingness and readiness to be coached. Client motivation appears to play a great part in the potential success of a particular coaching assignment. If the client is undertaking coaching under coercion, does not feel any particular need, or doesn't see the personal or organizational worth in it, valuable resources may be wasted in undertaking a coaching assignment. Client motivation plays a great part in the potential success of a particular coaching assignment. If the client is undertaking coaching under threat pressure, valuable resources may be wasted in undertaking a coaching assignment.

One of the things that appears to be clear is the role of coaches in helping their clients to understand why they behave the way they do (George, 2013). One of the ways coaches may employ the lessons from neuroscience is by enabling their clients to better see what others don't. Consistent with that idea, Psychologist Gary Klein an expert on decision making, has developed a set of tools to assist clients to access the insights of their own minds. Klein (2013) advocates a triple path model to engender insight which includes triggers, activities, and outcomes.

A promising framework for tapping into the unconscious level of the brain is to sense what is happening, explore what has been triggered by an external or internal signal, and take action by mitigating, compensating or removing threats of maximizing or magnifying rewards. Developed by Hills (2014) the CORE model represents the elements of Certainty, Options, Reputation and Equity that act to automatically and instantaneously trigger a behavioral response even before it has been considered rationally. Additional work summarizing relevant advances in brain science can be found in (Le Bihan, 2015; Siegel, 2012; Sousa, 2012; Van Hecke, Callahan, Kolar, and Paller, 2010).

Neuroscience research supports the idea that both conscious and unconscious processes arising from both genetic and environmental sources are at work as determinants in human affairs. However, at a deep-seated level, unconscious brain function appears to influence

both attitudes and behavior in the coaching relationship. Coaches and clients may both engage in behavior whose origins remain hidden to the conscious mind while the “interpreter” resident in the left hemisphere of the brain attempts to fabricate a plausible logical narrative explanation (Gazzaniga, 2015).

Ultimately, both coaches and clients need to be aware of what psychologists call the Fundamental Attribution Error that can covertly prejudice and distort the coach-client relationship. The Fundamental Attribution Error (Moran, Jolly and Mitchell, 2014) holds that when attempting to explain the reasons for other people’s behavior the tendency is to over emphasize the effects of personality and deemphasize the role of situational factors. The reciprocal is true when considering our own actions which we tend to ascribe more to situational causes and less to personality characteristics.

Perhaps then, the most important message from brain science to the coaching community is to be sure of your brain’s own biases and predilections before imposing them on a client.

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