Neuropsychoanalysis and Executive Consultation: Know Your Mind, It's the Royal Road to Leadership

Thomas Hoffman, MD*

Abstract

Divergent views of the utility of neuroscience for organisation and management consultation range from idealised to sceptical to dismissive. This situation is in large part due to the absence of specific interventions being shown to improve consultant or client performance and analysis of how they work. Here a neuropsychoanalytic paradigm of Mind that comprises: (1) subjectivity; (2) consciousness/unconsciousness; (3) intentionality; and (4) agency is applied to leadership and executive coaching. Implementing this model in the context of emotions (instinctive feelings) and affects (experienced feelings) bridges neuroscience and psychology. Examples are offered of how this synthesis practically promotes leaders' ability to go beyond emotional intelligence and mindfulness to actually "knowing their minds" as a methodology to enhance executive and organisational functions at work.

Key words: brain science, psychology, management, organisations.

"Our understanding of Neuroscience today is approximately where Galileo's understanding of physics was 500 years ago".

Anonymous Neuroscientist

The value of neuroscientific understanding for clinical psychology, especially in psychotherapy and psychoanalysis, is controversial. Despite our field's origins in the neurological insights and conceptualisations of Freud, many practitioners believe that explaining dreams, transference, repression, anxiety, aggression, erotic phenomena, and the unconscious (to name a few) in terms of neuronal chemistry, brain architecture, or neural circuits adds little or no value to the quality or understanding of mental health or its treatment (Kudler, 1989; Blass & Carmeli, 2015). Others, particularly researchers in cognitive neuroscience, argue for dispensing with outdated classical concepts in favour of an approach that is limited to brain-centred phenomena that

^{*}Address for correspondence: E-mail: thoffmd@PScience.com



can be scientifically validated and reproduced (Insel & Cuthbert, 2015). This stance has led to the pervasive use of psychotropic medications for a wide variety of conditions ranging from ADHD to depression and anxiety disorders, as well as psychosis.

For practitioners of applied psychology, including organisational consultation, the situation is even more unclear. Some, who practice under the rubric of "neuroleadership", claim that they are able to employ neuroscientific principles to improve change management, executive performance, and organisational efficiency (Rock & Ringleb, 2013). Others point to the futility of this approach on theoretical grounds (Lindebaum & Zundel, 2013), urging caution regarding its being a dangerous distraction (Lindebaum, 2013). In the current literature, there is a severe lack of management consultation cases which have been unequivocally influenced by basic neuroscientific knowledge (Gazzaniga, 2006) as opposed to basic psychology and organisational theory.

Part of the problem in identifying the neuroscientific component of effective consultative work rests, as is often the case, on semantics and nomenclature (Litowitz, 2014). According to Wikipedia, neuroscience is the scientific study of the nervous system. Traditionally, neuroscience is recognised as a branch of biology as well as psychobiology and psychiatry. Indeed, it is currently an interdisciplinary science that collaborates with other fields such as chemistry, cognitive science, computer science, engineering, linguistics, mathematics, medicine (including neurology), genetics, and allied disciplines including philosophy, physics, and psychology. In line with this framework, I will draw on observations from neuropsychoanalysis, a relatively new field of study, that has helped bridge understanding not just of the brain's structure but of the organisation and function of the mind. My goal is to apply neuropsychoanalytic concepts that have proven useful for understanding unconscious processes in clinical practice to organisational consultation and executive leadership development. This involves ideas pertaining to mind, affects, and motivations that will lead to a proposed neuroscientific-neuropsychoanalytic definition of leadership that is more user-friendly for consultants and clients alike. A case vignette framed by neuropsychoanalytic concepts, will illustrate the practical application of such an approach.

WHAT IS A MIND?

Solms and Turnbull (2002), synthesising a body of research in philosophy and cognitive neuroscience, attributes four characteristics to the mind:



- 1. *Subjectivity/Being*—Subjectivity is defined as mental processes that arise within the brain rather than being caused by external stimuli. Subjectivity represents an internal reality that is perceived rather than being independent of the mind. In contrast to the brain, which is the objective vehicle for subjective behaviour, the mind is, in part, the subjective brain manifestation of one's body, in other words: a key aspect of mind is sensing your body from the inside as opposed to observing it from the outside.
- 2. *Consciousness/Unconsciousness*. Consciousness reflects, in part, the activity of body monitoring nuclei deep within the brain, including the anterior and posterior cingulate cortex, insula, thalamus, hypothalamus, amygdala, and periaqueductal gray matter. Also, various internal brain–body states are registered as emotional arousals, including sensory affects (gustatory and olfactory, surprise), homeostatic affects (disgust, hunger, thirst, need for elimination), and expressed emotions (affects) that read out our response to others. The function of consciousness is to determine how one is doing in terms of one's vital needs. These states register as diverse feelings of pleasure and unpleasure.
- 3. *Intentionality (Motivation)*—Intentionality is mediated by limbic circuits that connect the forebrain to the cortex that lead to "instructional action". The mesocortical-mesolymbic dopamine system (also known as the Reward or SEEKING or Expectancy system) is the best studied of these. Our perceptions and other representations concern objects in the outside world, which is the only place where they can be resolved. Intentionality links our subjective feelings to the external environment.
- 4. *Agency (Free-Will)*—Agency involves the ability to suppress instincts (an activity mediated by the prefrontal lobes) in order to make decisions, to see the self as an object, and to generate narratives by way of language. This is the ability to *own* our actions and responses. We use thinking as a tool for imagining possible outcomes before *deciding* how to act.

THE PRIMARY EMOTIONAL PALETTE

Emotions and thoughts are the currency of the mind. Despite the widespread embrace of "emotional intelligence" in popular culture generally and organisational psychology specifically (Ashkanasy & Dorris, 2017), the role played by emotion is often limited to the dictum, "use your emotions, but not too much such that you lose control and rationality" alongside an emphasis on empathy. In recent years, Panksepp and Biven (2012) and other neuroscientists, building



on the empirical work of Tomkins (1984), Ekman (1992) and other psychologists (Ortony & Turner, 1990) have put emotions on a biological footing by their identification of clearly identified and wellcharacterised emotional systems in mammals. Panksepp's accounting and formulation,¹ which I term the "primary emotional palette" since blending of these systems may result in more complex affects, including guilt, shame, disgust, and envy, and hope, consists of the following:

- SEEKING (+)
- RAGE (Anger) (-)
- FEAR/Anxiety (-)
- LUST (+)
- PANIC/Grief (-)
- CARE (+)
- JOY (Play) (+)

They are presented here in an order that approximates an estimate of their evolutionary progression (and presented in capitals à la Panksepp, as a formal nomenclature for primary emotional–affective processes, to differentiate them from colloquial descriptions of feeling states). In what follows I present them in the order of a mnemonic I have found useful in helping patients and clients scan their experience for their presence, CRFLPJS (Careful P.J.'s).

CARE—Refers to nurturing, particularly one's young. Of note, it can be rewarding in the sense of being an affective state that is positive and relaxed. It is a source of love.

RAGE—Compels the animal to thrust its body towards the offending target and to use their extremities to bite or scratch it. It is a negative affect, however, when interacting with cognitive components (for example, when victorious over an opponent) it can become positive.

FEAR—Results in a negative affective state that people and animals want to escape from. At lower arousal levels, it creates bodily tension and immobility which can then increase in intensity in order for the person or animal to get out of harm's way.

LUST—Display of courting behaviour culminating in copulation. When a mate is absent, the organism experiences a craving, the tension created by this can be experienced as positive or as a negative stressor.

PANIC—Results in the experience of psychological pain internally in the absence of obvious physical pain. Particularly in young mammals, the panic/grief system is exhibited in insistent crying and an urgency in reuniting with their caretakers. PANIC plays a role in the



facilitation of social bonding and fluctuations in feelings associated with this system are a source of love.

JOY/PLAY—Participants usually assume alternating dominant and submissive roles. It is an enjoyable activity for participants, as long as the one that will end up the "loser" still has a chance to win. Ultimately it is a source of friendship.

SEEKING—This system is the most general purpose of them all and generates all exploratory engagement with the environment through forward movement and is characterised by a persistent inquisitiveness (e.g., to forage for food or seek shelter). It supports other emotion systems, with a role in both positive and negative emotions.

The dialectic between thoughts and feelings is often a source of confusion, including in organisational work and executive coaching. This problem is reflected in linguistic usage where "feel" can both refer to (1) being conscious of an inward expression, state of mind, or physical condition; and (2) having a sentiment or opinion. Conflating of "true" feelings and judgments is often a challenge in conflict resolution efforts where parties are asked to share their feelings with their adversary. "I feel you are a jerk!" is a common response. Clarifying the distinctions and pointing out their subjectivity can be enormously helpful in these situations. Allowing for acceptance of others' emotions as well as discovering the values behind their judgments furthers understanding among members of an organisation.

- Emotion = Instinctive Feeling (Unconscious)
- Affect = Experienced Emotion (Conscious)
- Feeling = Emotional State + Value

In a more general sense, feelings represent demands upon the mind to perform work, they represent demands on thinking. Thoughts then can be understood as ways of dealing with the feelings—figuring out what lies behind the feeling increases self-knowledge that can be applied to work and its relationships.

As Dall'Aglio (2017) points out, it is important to keep in mind that:

Neuropsychoanalysis does not reduce all of human emotion and motivation to seven neural circuits. Instead, these circuits are identified as bedrock emotional systems that have the "innate" potential for additional processes to be built on top of them. This view claims a bare minimum of common affective systems, not a universal determination on the full nature of emotional subjectivity ... Neuropsychoanalysis moves from the psychological to the neuroanatomical, not vice versa. Therefore, understanding the relationship between neural correlates and mental processes does not meaningfully inform phenomena already recognised psychologically.



APPLICATIONS OF NEUROPSYCHOANALYTIC CONCEPTS OF "MIND" TO LEADERSHIP

The ideas summarised above have originally been developed to better understand individual behaviour and to shed light on psychological disorders in order to improve treatments (Zellner et al., 2011). I believe, however, they can be extrapolated from in order to enhance our understanding of leadership and to strengthen and improve organisational interventions.

Thought leaders in organisational development have long sought to identify and taxonimise leadership traits (Hogan & Kaiser, 2005; Hackman & Wageman, 2007). Efforts in this direction have regularly been based on emotions, mostly from the perspective of personality and types that contribute to "good/effective" (Hogan & Holland, 2003; Maccoby 2007, 2015) or bad/ineffective (Hogan & Hogan, 2001; Paulhus & Williams, 2002; Furnham et al., 2013) leadership. A more recent example comes from the work of Hirschhorn (2016), who has put forward a view that takes one past a traditional focus on anxiety as a key determinant of leadership and group dysfunction and encourages a wider lens for organisational behaviour. He includes positive as well as negative emotions—a welcome development encouraged by the work of French and Simpson (2014). Using an example of a grocery store chain, Hirschhorn identifies leadership traits relevant to making decisions that include being playful ("connects people even when they strongly disagree"), can provoke people to verbalise uncomfortable ideas ("push people to speak truths they are afraid to verbalise"), has the common touch ("protects each person's self esteem") and can tolerate emotional extremes ("brings stakes and risks into sharp relief"). He suggests that in applying these strengths the emotionally intelligent leader creates a group process that sits equidistant from passion, scrutiny and creativity and goes on to frame this in classical psychoanalytic terms: "This positioning externalises the balance between the Id (passion), the superego (scrutiny), and the ego (creativity), that we associate with optimal individual functioning".

These thoughts resonate with the emotional construct described above. Furthermore, as is evident from Table 1, Hirschhorn's empirically derived categories more congruently mirror the emotional constellation of CRFLPJs.

Extrapolating from Solms' conceptualisation of the Mind of an individual and from exposition of his and Panksepp's work (Solm & Panksepp, 2012), I would like to propose a synthesis whereby one can view and understand leadership as the Mind of the Organisation.



Table 1. Leadership affects	
Primary palette	Hirschhorn
CARE RAGE (Anger) FEAR (Anxiety) LUST PANIC (Grief) JOY(Play) SEEKING	Obligation Frustration Signal Anxiety Passion Danger Passion Flow

- Leadership does for an organisation what the mind does for the body. That is, provides what it needs to survive, grow, and develop.
- Leadership can't be seen or otherwise objectivised because it is *subjective*!
- Leadership is both *conscious* and *unconscious* and is driven by the primary emotions. Its intentions are mediated by feelings (self).
- Leadership's *agency* is a function of self-reflection and thinking (ego) and often requires inhibition of automatic behaviours (Free Will).

This construct solidifies current understandings of leadership and helps to explain why such a vast variety of approaches to leadership are undertaken. It makes room for a panoply of leadership perspectives and clarifies why leadership strategies are controversial and even discrepant. Most importantly, to my mind, it keeps leadership in the bailiwick of psychologically informed consultation for executives and their followers.

Leaders and the public often seek a "definition" of leadership. I see *leadership as a subjective process mediated by way of feelings that consciously and unconsciously invokes intentionality and agency to manage an organi-sation's perceived internal and external deficits.* Working in this way, one can maintain focus on the needs of the organisation to improve and grow rather than privilege the wants of the people in charge.

The construct developed here is consistent with the approach of Healey and Hodgkinson (2014) that "illustrates the real value of neuroscience for understanding managerial and organisational phenomena in general" (p. 777) and that of Lieberman (2000), referred to by them, "These more recent developments imply that skilled performance emerges from an orchestrated interplay of multiple regions and structures dispersed across the brain as a whole, analogous to the way in which leadership and coordination processes operate in organic organisations" (p. 777).



As my practice is grounded in the principles of psychology and psychoanalysis that neuroscience elaborates, where it has proven most useful is in directing the attention of clients to the mental (mind) rather than simply behavioural (brain). Even very sophisticated and accomplished executives, who have not been inculcated with the nuances of psychology, often regard emotions as irrelevant or problematic. This is also the case for some neuroscientists (Bloom, 2017). Despite the current vogue and ubiquity of "Mindfulness", most clients I speak with have a very confused understanding of what this means and its utility remains a matter of controversy (Sauer & Kohls, 2011; Joiner, 2017). Applying the concepts outlined here gives them a much wider scope of what the concept of mind offers, well beyond the imperative of simply focusing one's attention non-specifically to obtain nonspecific benefits such as stress reduction and increased job satisfaction (Hülsheger et al., 2013). Executives can be helped to approach complex affective states from an instinctual level rather than a phenomenological one. For example, disappointment can be dissected into its anger (RAGE) and separation (PANIC) providing insight that leads to operational choices beyond retaliation or withdrawal.

I have also found that my clients have an enhanced ability to accept "scientific" principles over experiential findings, even if they are supported by intuition (a major problem in the opposite direction when the ideas are actually pseudoscientific). When framed in terms of neuroscience, perspectives for change help interventions to be better received and executives are, in turn, more likely to open channels of communication and understanding with their followers. In addition, after having the affective circuits delineated for them, clients can eventually sort through "CRFLPJs" on their own and "on the fly". Often emotions and affects that have eluded them in attempts to understand and undo impediments to the success in their business can be accessed. With new "feeling-centred information" comes a greater opportunity for growth. Clients also become more receptive to exploring and reflecting on the varied motivational systems that are at work in organising any project or endeavour; they can become much more open to subjectivity, particularly in conflictual situations. And, lastly, members of groups and organisations are in a much better position to see leadership as a "two-way street", with "followers" subject to the same conditions of Mind as "leaders".

For those who come to the practice of executive coaching and organisational consultation from other disciplines, neuroscientific concepts may be the first, the preferred, or the only route to psychological knowledge that is, in the final analysis, a key aspect of this type of work. For consultants who are well versed in psychology in any of



its forms, neuroscientific understanding may, in fact, be less useful in terms of practical intervention. At a minimum, though, neuroscience can define the parameters of what is possible or physiologically valid, potentially preventing "wild" analysis, "occult" practices that are not verifiable, or "mindless neuroscience" (Satel & Lilienfeld, 2013). Even for sophisticated psychologists, neuroscience can shed light on difficult or questionable practices. For example, I have always struggled to fully understand and explain Melanie Klein's (1935) concept of the paranoid-schizoid versus the depressive position until I became familiar with current neuroscientific observations on the dynamics observed in pups separated from their mother (Watt & Panksepp, 2009). The pups display behaviours consistent with activation of the PANIC system that include vocalisations of distress and extreme activity. These behaviours are replaced in time by inactivity, presumably to conserve metabolic resources and to prevent discovery by predators, which is presumably evolutionarily advantageous and protective.

CASE STUDY

The following vignette illustrates the use of the approach promoted here "in situ":

Dr Jim Reynolds, a member of the executive team leading a large suburban Pediatric practice, was arguably its most accomplished and dedicated clinician and was uniformly admired by his peers for his long-standing efforts to enhance its corporate functions. Yet, over the course of many years, his formal evaluations by non-physician junior staff contained consistent complaints regarding rude demeanor, inattentiveness to the needs of others on the team, and his consistently expressing negative perceptions of others.

In addition to being a blemish on Dr Reynolds' reputation, the ongoing controversy concerning non-medical personnel had disrupted the working relationship between Dr Reynolds and Dr Scheurwater, the practice's managing partner, despite their historically amicable cooperation on both clinical and administrative matters. Dr Scheurwater placed much importance on the review process, including defending its need for anonymity, and insisted (with the concurrence of the Board) that Dr Reynolds seek out executive coaching to fix his problem with staff.

Dr Reynolds engaged me, in large part because he felt that I would understand the ins and outs of medical practice and the "cultural" aspects of clinical care.



Dr Reynolds embraced the coaching aspect of our work, a stance abetted by mirroring both in terms of medical background and our sharing an approach that embodied thoroughness and intellectual precision. His psychological-mindedness was also a plus. Although he initially maintained "cluelessness" about who were potentially adversaries, as we sorted through clinical shifts he was able to identify those with whom his team experiences were sub-optimal and to appreciate that his accusers were likely to be those who, in his opinion, fell short of the standards he applied to himself. He could also begin to see that his needs for privacy could also be perceived by others as aloof and unsupportive. This was notably so when he left the clinic area proper to seek respite from the pressures of patient care in his office.

Progress in our work facilitated an agreement between Dr Reynolds and Dr Scheurwater for me to conduct a group meeting with the junior staff. Dr Reynolds was not to be present at Dr Scheurwater's insistence on "confidentiality" and in order to avoid a potential defensive reaction from Dr Revnolds or staff. In brief, I asked attendees (who were anonymous to me) to designate themselves as either critics or supporters of Dr Reynolds. Approximately a third identified with the former and two-thirds grouped together in the latter. The two groups carried out a task I assigned to suggest ways in which Dr Reynold's could improve his relationship with them and then convened a plenary discussion. Not unexpectedly, the "pro" group lauded Dr Reynold's clinical ability, his being a role model and teacher who promoted high expectations, and his having his thumb on the pulse of the clinic. They minimised a tendency to be curt at times and Dr Reynold's being averse to socialising. The "con" group focused on his gruff manner, his persistent unavailability, and his generally maintaining both physical and emotional distance from team members. There was little in the way of specifics for improvement, other than to change. In plenary, the group was surprised to note that their observations were quite similar but interpreted drastically differently. Conflict between members emerged as they reciprocally tried to convince others of the "truth" of their point of view.

Armed with the now more specific findings of how he was perceived and somewhat reassured that he was also accepted and admired by most, Dr Reynolds could see his role in the conflict that included a lack of attentiveness to the emotional needs of staff for propinquity and recognition. He was able to use the coaching to identify times when this was most likely to occur and to resolve to



spend more time relating directly to subordinates, especially when anxiety was high during intense clinical situations.

Throughout the consultation my interventions were guided by psychological concepts including projection, transference, mirroring and other unconscious processes. Dr Reynolds was receptive to these in general, Dr Scheurwater less so. However, both were swayed by observations derived from "neuroscience", likely enhanced by their physician training. It was thereby possible for all to see their situation as not just a conflict or personality issue but as a leadership issue and to analyse its components together via the framework described in this paper.

Dr Reynolds needed to appreciate that his relationship with staff included that of a leader and followers, not just supervisor of subordinate co-workers. I approached this based on the organisation's overall need for smooth operation and efficient teams, not simply in terms of individual preferences. His efforts had to be consistent with what the organisation needed, as a whole, and not just to satisfy his basic values such as teaching and learning, or even good clinical care. The consultation injected a heavy dose of subjectivity, including discrepant views on confidentiality and individual versus group responsibility as well as in terms of the members' divergent perceptions of Dr Reynolds. Dr Reynolds saw the need suppress some of his automatic behaviours (privacy, precision, judgmentalness) (Agency) in order to function in role as both a member of the team and supervisor (Motivation). This was largely based on a change in frame from seeing the staff as simply angry (RAGE) to seeing their more complicated and nuanced needs arising from anxiety (FEAR), lack of appreciation (CARE), and concerns about being left to their own devices (especially clinically) (PANIC). He was thus able to effectively mobilise his strong curiosity and drive to be effective (SEEKING) in providing (CARE) a satisfactory work environment (PLAY).

As a result of the consultation, Dr Reynolds experienced his work as an enterprise that, like his mind, was driven by affects that (à la Solms, 2012) served as the "sentient scaffolding for the construction of perceptual and higher mental activities"—the same as those that he brought to treating patients.

In this fashion of organisational and executive consultation, implementing a neuropsychoanalytic approach may feel more metaphorical than operational. Yet, currently this reality cannot be circumvented, given that meaning cannot as yet be modelled or constructed additively



from activation of various brain regions. We are left, much as Freud (1920g) was, to find analogies to biological processes in order to better understand behaviour. This heuristic is consistent, however, with contemporary demonstrations of how general scientific principles, for example the second law of thermodynamics (Pinker, 2017), apoptosis (Hoffman, 2004), or organ regeneration (Hoffman, 2012), may be applied to understanding psychology and culture.

Rare examples of correlating specific behaviours with biochemical or molecular biological changes in the brain do exist. One such example pertains to the susceptibility to placebo as a function of mutations in the enzyme catechol-O-methyltransferase (Hall et al., 2015). A recent report also documents highly specific pathways in the brain that lead to the calming effect induced by deep breathing (Yackle et al., 2017).² Customising consulting or management practice similarly by way of neuroscience remains an attractive idea but elusive goal, not unlike the wish to make all of medicine "evidence-based" and driven by individual patients' unique genetic profile. Presumably, efforts spurred on by the current well-publicised BRAIN initiative will yield findings both in the area of individual and group behaviours. Hopefully these can be sorted out in several generations of research, with practical applications. In the final analysis, understanding in both areas will come not just from the Mind and not just from the Brain, but from a synthesis of the two. Neuropsychoanalysis represents a first step in this direction and not just in the sphere of clinical progress but in consulting arena as well.

The fundamental strength of neuropsychoanalysis is its ability to coalesce cognitive and affective neuroscience into a conceptual framework with biological underpinnings that may be used to reproducibly elucidate human behaviour. Admittedly, it to a great extent privileges affect in this regard, which in my experience (as exemplified in the case study) is a good thing. Similar to the utility of neuroplasticity and neural reuse (Anderson, 2016) in emphasising the surprising array of behaviours and functions the brain can mediate, neuropsychoanalysis directs our attention to what executives can accomplish when they set their minds to their organisational objectives.

Acknowledgements

This paper is dedicated to the memory of Jaak Panksepp (1946–2017) who lent advice and encouragement throughout this project. I wish to thank John Dall'Aglio, Larry Hirschhorn, Joseph Lichtenberg, Richard Kessler, Michael Maccoby for helpful discussions, and Judith K. Hoffman for editorial comments.



Notes

- 1. Debate regarding psychologists' numeration of core emotions (Jack et al., 2014) and the basis for lumping or splitting them (Ortony & Turner, 1990) is beyond the scope of this paper.
- 2. Though it must be noted that the correlation between breathing and calm was observed empirically ages ago and was not derived from the neuroscience.

References

- Anderson, M. L. (2016). Neural reuse in the organization and development of the brain. *Developmental Medicine & Child Neurology*, 58(S4): 3–6.
- Ashkanasy, N., & Dorris, A. (2017). Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1) 67–90.
- Blass, R. B., & Carmeli, Z. (2015). Further evidence for the case against neuropsychoanalysis: How Yovell, Solms, and Fotopoulou's response to our critique confirms the irrelevance and harmfulness to psychoanalysis of the contemporary neuroscientific trend. *The International Journal of Psychoanalysis*, 96(6): 1555–1573.
- Bloom, P. (2017). Against Empathy. London: Bodley Head Limited.
- Dall'Aglio, J. (2017). What Can Psychoanalysis Learn From Neuroscience? The Neuropsychoanalysis Debate. Presentation at the Winter Meeting of the American Psychoanalytic Association, New York, January.
- Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion*, 6(3–4): 169–200.
- French, R., & Simpson, P. (2014). *Attention, Cooperation, Purpose: An Approach to Working in Groups Using Insights from Wilfred Bion.* London: Karnac.
- Freud, S. (1920g). *Beyond The Pleasure Principle. S. E., 18*: 1–64. London: Hogarth.
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The dark triad of personality: A 10 year review. *Social and Personality Psychology Compass*, 7(3): 199–216.
- Gazzaniga, M. S. (2006). The brain as boondoggle. *Harvard Business Review*, 84(2): 66.
- Hackman, J. R., & Wageman, R. (2007). Asking the right questions about leadership: Discussion and conclusions. *American Psychologist*, 62: 43–47.
- Hall, K. T., Loscalzo, J., & Kaptchuk, T. J. (2015). Genetics and the placebo effect: the placebome. *Trends in Molecular Medicine*, 21(5): 285–294.



- Healey, M. P., & Hodgkinson, G. P. (2014). Rethinking the philosophical and theoretical foundations of organizational neuroscience: A critical realist alternative. *Human Relations*, 67(7): 765–792.
- Hirschhorn, L. (2016). *Passion or Procrastination the Psychodynamics of Big Bet Decision*. Presentation at the Annual Meeting or the International Society for the Psychoanalytic Study of Organizations, Granada, Spain, June.
- Hoffman, T. (2004). Revival of the death instinct: A view from contemporary biology. *Neuropsychoanalysis*, 6(1): 63–75.
- Hoffman, T. (2012). Regeneration: The confluence of psychoanalysis, biological science, and literature: Lessons for individual treatment and organizational consultation. *Socio-analysis*, 14: 1.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: a socioanalytic perspective. *Journal of Applied Psychology*, 88(1): 100.
- Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment*, 9(1–2): 40–51.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9(2): 169.
- Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98(2): 310.
- Insel, T. R., & Cuthbert, B. N. (2015). Brain disorders? Precisely. *Science*, 348(6234): 499–500.
- Jack, R. E., Garrod, O. G., & Schyns, P. G. (2014). Dynamic facial expressions of emotion transmit an evolving hierarchy of signals over time. *Current Biology*, 24(2): 187–192.
- Joiner, T. (2017). *Mindlessness: The Corruption of Mindfulness in a Culture of Narcissism*. Oxford: Oxford University Press.
- Klein, M. (1935). A contribution to the psychogenesis of manicdepressive states. *The International Journal of Psycho-Analysis*, 16: 145.
- Kudler, H. (1989). The tension between psychoanalysis and neuroscience: A perspective on dream theory in psychiatry. *Psychoanalysis* & Contemporary Thought, 12(4): 599–617.
- Lieberman, M. D. (2000). Intuition: a social cognitive neuroscience approach. *Psychological bulletin*, 126(1): 109–137.
- Lindebaum, D. (2013). Pathologizing the healthy but ineffective: Some ethical reflections on using neuroscience in leadership research. *Journal of Management Inquiry*, 22(3): 295–312.



- Lindebaum, D., & Zundel, M. (2013). Not quite a revolution: Scrutinizing organizational neuroscience in leadership studies. *Human Relations*, 66(6): 857–877.
- Litowitz, B. E. (2014). Coming to terms with intersubjectivity: keeping language in mind. *Journal of the American Psychoanalytic Association*, 62(2): 295–312.
- Maccoby, M. (2007). *The leaders we Need: And What Makes us Follow*. Boston: Harvard Business Press.
- Maccoby, M. (2015). *Strategic Intelligence: Conceptual Tools for Leading Change*. Oxford: Oxford University Press.
- Ortony, A., & Turner, T. J. (1990). What's basic about basic emotions? *Psychological review*, 97(3): 315.
- Panksepp, J., & Biven, L. (2012). The Archaeology of Mind: Neuroevolutionary Origins of Human Emotions (Norton Series on Interpersonal Neurobiology). New York: W. W. Norton & Company.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6): 556–563.
- Pinker, S. (2017). 2017: what scientific term or concept ought to be more widely known? Retrieved on 8 January 2017, from www.edge.org/ response-detail/27023
- Rock, D., & Ringleb, Al H. (2013). Handbook of Neuroleadership. *Institute of Neuroleadership*. New York: Neuroleadership Institute.
- Satel, S., & Lilienfeld, S. O. (2013). Brainwashed: The Seductive Appeal of Mindless Neuroscience. New York: Basic Books.
- Sauer, S., & Kohls, N. (2011). Mindfulness in leadership: does being mindful enhance leaders' business success? In *Culture and Neural Frames of Cognition and Communication* (pp. 287–307). Springer, Berlin, Heidelberg.
- Solms, M., & Panksepp, J. (2012). The "Id" knows more than the "Ego" admits: Neuropsychoanalytic and primal consciousness perspectives on the interface between affective and cognitive neuroscience. *Brain Sciences*, 2(2): 147–175.
- Solms, M., & Turnbull, O. (2002). The Brain and the Inner World: An Introduction to the Neuroscience of Subjective Experience. London: Karnac.
- Tomkins, S. S. (1984). Affect theory. Approaches to Emotion, 163: 195.
- Watt, D. F., & Panksepp, J. (2009). Depression: An evolutionarily conserved mechanism to terminate separation distress? A review of aminergic, peptidergic, and neural network perspectives. *Neuropsychoanalysis*, *11*(1): 7–51.
- Yackle, K., Schwarz, L. A., Kam, K., Sorokin, J. M., Huguenard, J. R., Feldman, J. L., ... & Krasnow, M. A. (2017). Breathing control



center neurons that promote arousal in mice. *Science*, 355(6332): 1411–1415.

Zellner, M. R., Watt, D. F., Solms, M., & Panksepp, J. (2011). Affective neuroscientific and neuropsychoanalytic approaches to two intractable psychiatric problems: Why depression feels so bad and what addicts really want. *Neuroscience & Biobehavioral Reviews*, 35(9): 2000–2008.



lecturer at the University of Pennsylvania and Jefferson University. He is the author of many books and articles on organizational psychodynamics, including *The Workplace Within* and *Reworking Authority*.

Thomas Hoffman, MD, graduated from the Baltimore–Washington Institute for Psychoanalysis and is certified in adult psychoanalysis by the American Psychoanalytic Association. He is the Founder of and Principal at PScience Associates, a consulting firm focused on organisational development, strategy, group dynamics, and executive leadership. He is currently the Co-Chair of the Committee on Corporate and Organizational Consulting of the American Psychoanalytic Association.

Jennifer Amanda Jones is an assistant Professor of nonprofit management and leadership at the University of Florida. In addition to her academic training, which includes a PhD in leadership studies and an MA in non profit management and leadership, she has many years' experience in the non profit sector.

Olya Khaleelee is a corporate psychologist and organisational consultant with a particular interest in leadership, organisational transition and transformation. She was Director of OPUS: Organisation for Promoting Understanding of Society, applying a psychoanalytic and systemic approach to understanding societal processes that give rise to conflict. She has published extensively in the areas of leadership, including psychological assessment of senior executives and on system psychodynamics in organisations and in society.

Mark Stein, PhD, is Professor of leadership and management at the School of Business, University of Leicester, UK. He has also held posts at Imperial College London, London School of Economics, Brunel University, and the Tavistock Institute. He has received an Emerald Citation of Excellence, the Richard Normann Prize, the Group & Organization Management best paper prize, and the iLab prize for innovative scholarship.

Gerard van Reekum is an organisation scientist and consultant, working from Amsterdam (NL). He is an associate of the Organisation for Promoting Understanding of Society (OPUS) and a former director on the board of Group Relations Nederland.



Reproduced with permission of copyright owner. Further reproduction prohibited without permission.

