Intelligent Behaviour Analytics: A Novel Framework for Effective Leadership Style Transitioning

Stephen Johnson, Adam Crizzle, Katharine Lam, Louise Toner, Ryan Marcovich and Paul Coulter

Birmingham City University, UK

stephen.johnson2@mail.bcu.ac.uk adam.crizzle@bcu.ac.uk katharine.lam@bcu.ac.uk louise.toner@bcu.ac.uk ryan.marcovich2@bcu.ac.uk paul.coulter2@nhs.net

Abstract: The last three decades saw a reliance on the use of personality tests by businesses and organisations trying to gain a competitive advantage in the market through avenues such as recruitment, team building, leadership development and culture alignment. The commissioning of early 20th Century personality models such as DISC and Myers-Briggs are claimed to provide valuable insights and benefits in various aspects of the employment process. They have however been controversially debated in the academic community due to issues surrounding validity and reliability. Discussions concerning leadership styles and leaders responsible for managing employees, are similarly indeterminate despite being subject to extensive research and analysis for many decades. Academics have yet to provide a comprehensive explanation of the holistic mechanisms underlying effective leadership. Instead, they have argued over factors such as a leader's traits, attributes, power relations or unidimensional versus collaborative models of engaging a work force. Current leadership theory literature demonstrates a paucity of leader self-understanding and self-reflection. We consider these two attributes as fundamental qualities of effective leadership, whereby an individual can transform and enhance their use of any leadership style. In this paper, we propose an advanced 21st Century solution that leverages the Intelligent Behaviour Analytics (IBA) framework, incorporating a deep and more effective understanding of leaders and their ability to transition between different leadership styles. Additionally, this framework offers methods for transitioning to more effective leadership styles based on situational requirements and takes into account a leader's own emotional and behavioural registers. This approach offers a structured opportunity for leaders to identify any biases, understand the reasons that these may develop and furthermore, evaluate the efficacy of their own behavioural traits and the way they, as individuals interact, manage and lead a team. The IBA framework is a multi-stage, holistic approach that proposes to improve performance metrics, organisational culture, business outcomes and increased wellbeing.

Keywords: Leadership, Organisational culture, Intelligent behaviour analytics, Personality tests, Leadership styles

1. Introduction

Organisational culture was first identified in historical records as early as 431BC by Pericles who considered a culture of unified teamwork was key to Athens winning the Spartan war (Fisher 2000). The early 1980's saw the topic of organisational culture emerge as a key theme in academia and business. Bestselling authors benefitted from claims they made that, in order to be successful 'organisations needed to focus on their cultures' (Deal & Kennedy, 1982; Ouchi, 1981; Peters & Watermans, 1982). Accordingly, management staff have been exhorted to consider the implications on their organisation of its culture (Ogbonna & Harris, 2002).

Defining organisational culture and establishing reliable, consistent methods to measure distinct qualities and attributes, has however been challenging for researchers. The literature promotes substantial diversity of viewpoints, making it difficult to arrive at some universally accepted construct. One of the more widely acknowledged proposals by Schein (1992), identified organisational culture as being a combination of: artefacts, values, and basic assumptions. Later, Hawkins (1997) adapted Schein's model by subdividing it into: artefacts, behaviour, mind-set, emotional grounds, and motivational roots. The foundational contributions of Schein and Hawkins laid the groundwork for Professor Mannion's influential report, which garnered an impressive 97% consensus regarding definition, amongst participants (Mannion, et, al., 2009). They proposed that 'culture is the collective set of shared beliefs, values, attitudes, and behavioural norms prevailing in the workplace'. They articulated it 'encompasses local routines, traditions, ceremonies, and the ways in which individuals interpret and make sense of their immediate environment.' Moreover, they viewed such cultures as possibly being far from uniform or coherent. This notion was evidenced earlier by Boisnier & Chatman (2003), whose paper discussed potential issues arising from the role of subcultures emerging from different sections of the same organisation.

For researchers, such as Boisnier & Chatman (2003), Chandler (2019) and Lazazzara (2016), addressing problems arising from such complex and dynamic processes within organisational cultures, all concurred that effective leadership is required, to recognize, understand, and manage it effectively. Unfortunately, these complexities are further exacerbated when considering the numerous leadership styles competing for literary eminence. Models of leadership theories and leadership styles, vary significantly depending on specific perspectives and contexts from which they are viewed, whereby different situations may allow for different leadership styles and approaches to prevail (Northouse, 2016).

Personality tests are therefore, often employed in organizations to address or simplify a range of organizational challenges, improve scalability or potentially lower cost of operations, but their utility remains doubtful given the huge cost of poor practices on UK businesses (CMI, 2014;2018) with little in the way of practical solutions. Considering such issues, this paper argues that betterment of poor organisational cultures, requires effective leadership whose leaders demonstrate high levels of self-understanding, and only with high levels of self-understanding are leaders able to 'flex' and occupy multi-leadership styles.

2. Leadership

Schein's Organizational Culture Model (2010), proposed leadership as being central to organisational culture albeit; a complex and multifaceted concept that can be viewed from various perspectives, involving duties and qualities of the leader and of the group being led. Theories regarding leadership styles range from early trait and personality theories based on power relations and privilege (Allport 1937), to more recent 'empowerment models' such as Transformational Leadership which imbue the importance of engagement, co-creation, focus on values and ethics (Avolio, et. al., 1999). Such variation raises the issue as to which methods of leadership are better operationalised through the optics of task or relationship-driven outcomes (or both), whether this enterprise is effectively communicated by the leader, and subsequently interpreted by the group or organisation accordingly. This suggests that effective leadership requires not only the flexibility to adapt their leadership qualities but also a deep understanding of, and the ability to manage, the unique characteristics and individuality of each member within the organization.

Self-awareness and self-regulation, both considered emotional intelligence attributes are identified as critical success factors for both leaders and followers (Goleman, et. al., 2002). Distinguishing between leader development and leadership development is a complex and nuanced matter. Ongoing debate persists in efforts to establish a clear differentiation between these two concepts (King & Nesbit, 2015). The most common themes are the differences between developing human capital (*leader* development) and social capital (*leadership* development). Developing human capital often emphasises the ability and capabilities of individuals (Day, 2000), and is closely related to self-awareness, self-regulation, and self-motivation — which he contends, are the foundations of intrapersonal competences. Scholars like Goleman (1995) identified that an emotionally intelligent leader is one who fosters self-awareness, self-management, social awareness, and relationship management. Nonetheless, numerous questions persist regarding why intelligent and experienced leaders may not always effectively perform, citing reasons including emotional intelligence, leadership style and organisational climate (Cavazotte et. al.,2011).

3. The Role of Leadership and Leadership Styles in Improving Mental Health (MH) and Resilience

Leadership literature reports numerous links between leadership, MH and employees. A meta-analysis by Stuber et.al. (2021) undertook a systematic search which produced over 11000 results on the topic. Leadership styles themselves are not inherently unethical or ethical; rather, it is how leadership styles are practiced and the values and principles that underlie them, that can influence whether unethical behaviour is promoted or discouraged within an organization. Different leadership styles can be applied in ways that either encourage ethical behaviour or create an environment conducive to unethical conduct (Goleman, 2000; Schein 2010).

Yukl & Gardner (2019) touched on some of the issues prevalent within leadership styles that are said to promote unethical behaviours by a leader. For example, exploitation of members of an organisation has a detrimental effect on its employees and predicts poor work-related health and quality of life. Authoritarian leadership, whilst evidencing some benefits, is largely decried in the literature due to the characteristic nature of a leader's control over decision-making and the communication style adopted, fails to recognise the impact over the other (Hackman & Johnson, 2009). When a leader uses their authority and power over others to engage in unethical behaviour, it mediates the quality of the organisational culture. Yukl & Gardner (2019) suggested that this sets a negative example for others to follow which globally, can have a negative impact on the organisation. This may

result in wide-ranging consequences, affecting both the organization's internal dynamics and its external reputation, creating a hostile and stressful environment for employees to work in (Bass & Riggio, 2006). According to Yukl & Gardner (2019), "Powerful leaders can have a substantial impact on the lives of followers and the fate of an organization" (p647).

The term 'leader idealised influence' previously reported on by Burns (1978), is reported as a psychological (largely unconscious) phenomenon which for example, may lead members to working longer, unnecessary hours. Bass's (1985) model of Transformational Leadership, is perhaps viewed as a more progressive leadership style, said to inspire loyalty and motivate followers to perform at higher levels. However, limitations of this approach were examined by Seltzer & Bass (1990), stating that it could become an unintended source of burnout for employees. In a similar vein, Rivkin et. al. (2014) reported that supporting wider group needs, might lead individual employees to avoid considering the importance of maintaining their own health and wellbeing. Therefore, it is vital that individuals in leadership roles recognise the significance of their actions, as effective leadership plays a pivotal role in addressing and alleviating organisational fragmentation (Schaedler et.al., 2022).

Research findings by Rivkin et. al. (2014) report on positive benefits of good leadership to influence both motivation and performance at work. On the other hand, organisational culture, individual motivation, morale and environment are important determinants of MH; with workload and both peer and leader support being key themes (Phillips et al., 2020). As the rationale for this paper is to generate interest in the topic of self-understanding in leadership, it will be pertinent to consider the hypothesis of whether the capacity of a leader to develop greater self-understanding, is indeed a predictor for improved organisational culture and employee wellbeing.

4. Intelligent Behaviour Analytics (IBA)

IBA is a multi-layered, unique framework to enhance self-understanding and provides a structure to develop leadership, emotional intelligence, and provides a coaching and mediation pathway for all levels of an organisation. It enables the analysis of human behaviour, emotional responses, verbal, and non-verbal communication and how people learn, developing probability in a range of situations. IBA explores the way in which people work with one another, manage their own behaviour, and relate more effectively to others.

IBA diverges from the idea that people should be grouped into patterns or types and is designed to help individuals understand and appreciate their uniqueness. In so doing, they acquire the confidence and insight to flex into the leadership style relevant to the situation before them. The six cumulative stages are designed to provide in-depth content that increases levels of self-understanding and has the potential to produce a narrative unique to everyone, effectively narrating an in-depth and individualised discussion about that individual.

The first stage is based on an ancient Indian proverb and is included in the book, *The Four Rooms* (Godden, 1989), where the axiom is described as,

"Everyone is a house with four rooms, a physical, a mental, an emotional and a spiritual. Most of us tend to live in one room most of the time but, unless we go into every room every day, even if only to keep it aired, we are not a complete person" (Godden, 1989).

The guiding process of IBA focuses on encouraging participants to inhabit each 'room' in balance. As the participant engages in the next five stages, they gain clarity with respect to how to navigate efficiently into each room. This stage aligns with the principles of Science, Technology, Engineering, Arts and Mathematics (STEAM) education, and reinforces the importance of including the Arts, thereby addressing the whole person, and prioritising a fundamentally holistic and collaborative approach. Similar in nature to Covey's 'Seven Habits of Highly Effective People' (Covey, 1990), the 'Four Rooms' provide a handrail to an individual's understanding of their busy, connected, highly pressurised, daily lives.

The second stage is built from the instinctive responses of 'Fight, Flight, Freeze & Friend', conceptualised as 'the 4Fs', which map and compliment an individual's behavioural needs, as described in stage three. It explains that whilst these are commonly understood as survival responses, their influence can be felt throughout an individual's daily interactions. Each of the 4F responses have specific positive outcomes, especially when an individual is experiencing challenging circumstances. Conversely, dependent upon the situation, each of the responses may lead to unwelcome and unhelpful outcomes especially if employed in a purely reactive and habitual manner. An individual will likely have one or two responses that are most prevalent and commonly felt. The IBA framework guides participants to understand how their instinctive 4Fs may change throughout the following three states of pressure:

- Rest and Relax State a time of relaxation characterised by the absence of pressure or external control.
- Favourable Pressure State when an individual experiences a motivating and/or inspiring spark. This
 state is characterised by a heightened awareness, efficacy, and energy. Being in control of their
 behaviours and outcomes.
- Unfavourable Pressure State when challenges are stressful and possibly overwhelming. Whilst this
 state can be borne in the short term, if it persists it can adversely affect health and well-being in the
 longer term. Individuals rarely feel in control of the situation or outcomes.

The third stage concerns an individual's behavioural needs. In line with the IBA framework, conventional psychological literature indicates that emotion drives our actions and behaviour (Baumeister et. al., 2007). Similarly, Bariso (2018) sought to define emotional intelligence, as 'a person's ability to identify emotions (in both them and others), to recognize the powerful effects of those emotions, and to use that information to inform and guide behaviour'. The *behavioural needs* layer is academically underpinned by the work of Marston (1928), perhaps most famous for designing the world's first polygraph machine. More interested in behaviours of the general population rather than abnormal psychology, he discovered the correlation between lying and increased blood pressure. Marston further developed the work of Jung, who created a ground-breaking model for human behaviour in which, he recognised people can be divided into four main functions of consciousness: sensation, intuition, thinking and feeling (Jung, 1921).

Considering its application for organisation, early pilot studies are promising, and it is hypothesised that this level of self-understanding can improve leadership and influence organisational culture within their institution. IBA philosophy aligns with Goleman (1998), who proposed that, "exhibiting emotional intelligence at the workplace...means understanding your own and other people's emotional makeup well enough to move people in the direction of accomplishing your company's goals" (p93). IBA however goes much further than a proposition as it facilitates the practicalities of implementing the improvement which Goleman alludes to.

Marston's (1928) seminal book, 'Emotions of Normal People', theorised that normal human emotions lead to behavioural differences, and how a person's behaviour might change over time and focused directly on observable and measurable psychological phenomena. He was interested in using practical explanations to help people understand and manage their experiences and relationships. Marston proposed that the behavioural expression of emotions could be categorised into four primary types which he labelled as, 'Dominance (D), Inducement (I), Submission (S), and Compliance (C)'. Marston recognised, that whilst everyone may adopt one primary pattern, the behaviour types could blend into one another, and individuals were a 'blend of all four behaviours'.

Marston's research was however, never turned into an assessment measure. Some years later, Clarke (1956) became the first person to pioneer an assessment instrument using Marston's theories. The assessment, having been used by Clarke since 1948, was originally intended for personnel selection by businesses, the primary aim being to create a measurement tool that could be used to generate personality descriptions. The four factors in Clarke's data (aggressive, sociable, stable and avoidant), were based on Marston's model. In 1958, advancing Clarkes research, Hendrickson developed the Thomas Personal Profile Analysis as a self-report tool, which became the forerunner to the modern DISC profile (Thomas, 2023).

Whilst researchers propose that DISC accrues responses into fifteen fixed narratives or patterns of behaviour, IBA posits this does not sufficiently capture the nuances of human beings. In comparison, by adding subsets to the questionnaire design, the IBA framework captures additional nuances enabling higher levels of accuracy. IBA predicts that an individual's behaviour is related to, and a mix of, four specific psychic domains (mental constructs) like 'internal working model' theories posited by Piaget (1952) and Bowlby (1969). These domains are termed; harmony, immediate, careful, and optimistic – referred to as HICO within the IBA framework. Furthermore, this third stage draws upon Maslow's (1943) Hierarchy of Needs model; a theory of psychological health predicated on fulfilling innate human needs in priority, culminating in self-actualization. His work on motivation is entwined with Marston's and is embedded into the narrative outputs provided by the IBA framework.

5. Emotional Responses

Emotions play a central role as guides to behaviour and the maintenance of an integrated self (Damasio, 2006). Until recently, the role of emotions in the workplace has been underestimated and little academic commentary beyond job satisfaction (Cartwright & Pappas, 2008). Emotions surface in response to internal or external events,

typically experienced as positive or negative affect. Leeper (1948) suggested emotions are primarily poignant forces, 'processes which activate arousal, whilst sustain, and direct activity.' Emotions are generally recognised as an 'awakened reaction to circumstance or situations' (Ekman, 2007); 'play a part in shaping the way in which the mind interprets stimuli from the external world' (Payne, 2015); and 'virtually every emotion one might feel, will motivate us into action' claim Fisher & Shapiro (2005).

Fisher & Shapiro (2005) claimed that emotions are ever-present, and in collaboration with reason, influence how people evaluate and react to situations. Therefore, a discerning knowledge of our own and others' emotions are said to be vital to developing emotional intelligence, leadership, and leader development (Dalgleish & Power, 1999; Momeni, 2009).

Debate exists in the literature regarding the amount and type of emotions albeit, consensus in agreement on six basic emotions; happiness, sadness, fear, disgust, anger and surprise (Ekman, 1992). Key to Ekman's contributions, is the conclusion that whilst many emotions are recognised cross culturally, Dalgleish & Power (1999) assert basic emotions as having evolutionary roots and adaptive functions for survival. Goleman's (1995) model which includes eight basic emotions; anger, sadness, fear, enjoyment, love, surprise, disgust, and shame, argued that enjoyment, love, and shame be included within core emotion theories. Further research out of the University of Glasgow, by Jack et. al. (2014), employed complex computer modelling and reverse correlation techniques. Significantly, they identified that disgust/surprise, were 'social', rather than 'biological' conditions and concluded that there are only four basic emotions, given what certain cultures regard as disgusting/surprising, others may not.

Within the IBA framework, core descriptors for its four biological emotions draw upon the contributions from Jack et. al. (2014), and that of Albert Ellis, who founded Rational Emotive Behaviour Therapy (REBT). Ellis (1957) suggested that humans tend to disturb themselves through holding three core beliefs; demands on self, others and life, and the result of his work forms the individual narratives concerning the four biological emotions used in IBA which are experienced by all 8 billion people on earth (United Nations, 2022). IBA research hypothesises that one's strongest emotional responses are driven by threats to one's core HICO behavioural needs, or challenges to the needs of our top domains; said to elicit an emotional response that evokes predictable responses in line of the characteristics of whichever domain is threatened.

Better self-understanding, through knowing one's HICO needs, and one's 4Fs responses, provides the framework for understanding one's emotional response and instinctive reaction when these needs are challenged or threatened. IBA suggests that emotional responses vary depending upon an individual's most influential domain(s) of behaviour. Furthermore, this posits why people react differently to one another, even under similar circumstances. Knowledge and comprehension of these response within yourself (and others), is a fundamental skill necessary for development of emotional intelligence and leadership (Goleman, 1995). IBA suggests that whilst everyone experiences certain basic emotions, an individual's most influential behaviour domain(s) affects the extent certain emotions are experienced. In other words, depending upon which core needs are threatened/attacked; the range of emotions experienced; the intensity each are experienced and how one typically deals with different emotions, is very much determined by your personal HICO behavioural profile.

6. Interaction and Communication Preferences

An interactions element of IBA known as 'WORLDS' allows for a deeper insight into self-understanding and shows how these activities can have a mitigating effect and influence, upon behavioural needs and responses. The acronym stands for: 'Writing, Oral, Reading, Listening, Doing and Seeing'. In a similar vein to behavioural needs, one or more interaction preferences are likely to provide greater influence and be more commonly utilized, than others, depending upon the individual.

This element of the framework operates in three stages:

- 1. Inputs WORLDS preferences used to receive information.
- 2. Process WORLDS preferences used to process information about our environment and to clarify or develop thoughts, ideas, knowledge, and feelings.
- 3. Outputs WORLDS preferences used to effectively take action, to express thoughts, ideas, knowledge, and feelings; information which may, or may not be subsequently shared with others.

Once the WORLDS preferences are interpolated with an individual's HICO scores, 4F reactions, and Emotional Responses; the IBA framework delivers in-depth narratives that significantly enhance user self-understanding.

The sixth and final stage goes one crucial step further. By drawing together all that has been covered in the first five stages and applying these observations to an individual's historical life events, it enables users to access a much clearer and fundamental understanding of how these events have impacted and shaped that individual.

7. Discussion

This paper proposes that employing IBA, will provide leaders with accurate data-driven information (their personal report), that can be practically applied, to improve self-understanding and those in their group. Furthermore, this self-understanding should increase a leader's ability to adapt to the dynamic contexts of the workplace. We argue that by integrating the IBA framework into a company's performance management system, leaders would be able to confidently transition between different leadership styles, ultimately optimising employee wellbeing and organisation output.

Once a leader has completed the six stages of the IBA framework, they will be able to understand which leadership style(s) they over/underuse and the most likely leadership style(s) used in *rest and relax, favourable* and *unfavourable* pressure states. Furthermore, as leaders become more proficient in assessing different scenarios, the needs and likely responses of their team members under favourable and unfavourable pressure, the probabilities of overcoming common workplace challenges increase significantly.

The IBA framework offers an innovative opportunity for leaders to deepen self-understanding and engage in critical self-reflection. Ultimately, controlling employees' behaviour is not under a leader's control, but deploying which leadership style is likely to get the most out of their employees, is. This is a fundamental reversal of historical and modern management theory. Contrary to previous popular belief, encouraging positive change in an organisation does not start with detecting maladjusted employees or weaponizing the results of personality tests, rather it acknowledges the shared responsibility leaders have. All employees should understand the self and direct viable insights in a positive, effectual way, absent of the personal or professional biases derived from a lack of self-understanding that may leak into existing performance management systems.

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