Navigating Leadership Flexibility. How do technical leaders pick the right approach?

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Abstract

This study seeks to understand what factors motivate technical leaders or affect a change in their leadership style, and how authenticity is linked to changing style. A recent study from the Chartered Management Institute showed 82% of UK Managers who enter management positions have not had any training. Other reports show the UK suffers from a management skills gap and skills shortage. This study looks to investigate what technical managers practice if they are lacking skills and formal training. A literature review is conducted, and the themes synthesised form the basis of semistructured interviews. A purposive sample is used consisting of six managers working in and with technology with a UK base. This study adopts a Grounded Theory Approach, seeking to iterate between data, emerging themes, and existing explanatory theories. The ability of a leader to use their interpersonal intelligence is found to be linked to both changing their style and conflict reconciliation. Two common values which guide participant's leadership approach are found: Individual Accountability and Trust in Others. An association between participants' conceptual rigidity in defining authenticity and their willingness to change or present themselves differently is found. Expanding the sample size to improve generalisation validity and development of a quantitative measure of this association provide opportunity for further research.

1. Introduction

There is a need for managers and leaders to improve their effectiveness in navigating their roles. 82% of UK managers who enter management positions have not had any formal management or leadership training; 52% do not hold any management or leadership qualifications (CMI, 2023). The same study reported that one third of all managers are likely to leave their job in the next 12 months, and 50% of staff who rate their manager as ineffective are planning to leave in the next 12 months, versus 21% of those who rate their manager as effective. The study also reports that staff who rated their manager as ineffective are far less likely to have job satisfaction, feel motivated in their job, or be satisfied with their renumeration package. All of these are factors which affect motivation, and in turn performance (Herzberg et al., 1959), (Gerhart and Fang, 2015).

In 2018 the Industrial Strategy Council predicted that 2.1 million workers in the UK are "likely to be acutely under-skilled in at least one core management skill (leadership, decision-making, or advanced communication)" by 2030. That research paper argued "an urgent shift to a new norm of lifelong learning in the UK workforce is required" (Industrial Strategy Council, 2019). While that body was controversially abolished in 2021 (Sky News, 2021), the Department for Education's Employer Skills Survey 2019

supported these claims. In the UK, a lack of management and leadership skills contributed to 44% of all skill-shortage vacancies, defined as "vacancies [employers find] hard to fill due to applicants lacking skills, expertise, or qualifications", whereas a lack of management and leadership skills were a factor for 57% of the skills gaps, defined as the percentage of the workforce lacking the skills to be proficient at their job as rated by their employer (DfE, 2020).

The assertion that both managers themselves and the prospective-manager talent-acquisition pool are lacking in skills suggests managers and leaders are uninformed, incompetent, or both. This study speculates each of these options to be unlikely. When also considering the broad lack of formal qualifications managers possess, this study investigates whether the phenomenological knowledge managers hold through experience, the "doing of leading" (Pye, 2005, p47), is an alternate path to understanding how managers approach making decisions in an ever-shifting environment.

2. Research Questions

The aim of this research is to consider how situational leadership interacts with authenticity and the core values held by leaders, and their organisation. The research questions are as follows:

RQ1: What affects or motivates a change in leadership style?

- (a) How do managers navigate transitioning between different authentic versions of themselves?
- (b) Are there common narrative themes managers use when reconciling conflict between stakeholders?
- (c) How do managers' personal values, including their degree of alignment with their employer's 'core values', impact their leadership approach?

3. Literature Review

3.1 Increasing Change and Complexity

Whether and to what extent Leadership differs from Management has been hotly debated for decades; it seems there are as many definitions given for leadership as there are adjectives affixed describing different styles or types. While Kotter makes the distinction that "Managing is about coping with Complexity [and] Leadership, by contrast, is about coping with change" (1990 p.4), we exist within and are

contextualised by an age of constant change at an increasing rate (Hammer and Champy, 2001, p26; Kotter, 1990; Cialdini, 2014, p228; Hong et al., 2016). Too, it has been suggested that complexity, or perhaps our ability to perceive complexity, is increasing in our world (Lineweaver et al, 2013, pp.3-17). It follows therefore that it is necessary not only for both managers to lead and leaders to manage in a time when the situational environment is ever changing, but how they handle complexity is important.

As we are confronted by the 'form and accelerating pace' (Caildini, 2014) of modern life, permanent Standardised Operating Procedures become less useful, as illustrated by organisations increasingly pursuing Continuous Improvement/Kaizen strategies (Bhuiyan & Baghel, 2005; Carnerud et al., 2018). Organisational Improvisation offers another solution where the implied assumptions of organisational design are flipped on their head: organisations are instead foundationally built upon crises and nonstandard events; an effective organisation has many crises and exploits them (Weick, 2001). Regardless of the approach, while Globalization of 1990s was an observable effect of increasing change (Giddens, 2002; Thomas, 2003), leaders continue to find it increasingly necessary to respond to a changing situational context in the modern world.

3.2 Situational Context in Theory

The idea that different leadership approaches or styles are better suited or more appropriate for different situational contexts is well established in literature. Woodward (1958) suggested an organisation's structure could be changed according to it's technology, recognising the leadership approach being contingent on the external situational factors. This is supported by the continuum of leadership behaviour (Tannenbaum & Schmidt, 1957), which seeks to illustrate the relationship between the level of freedom permitted to a team versus the level of authority used by a manager, and which behaviours are most appropriate for a leader in this onedimensional measure. A common method used by leadership theories to manage the complexity of a situational context is to conceptually constrain it by using a definition of only a few attributes. Fiedler's Contingency Model of Leadership also recognised the situational as pivotal (1964; 1976). He argued three factors made up a leaders "Situational Favourability": Leader-Member relations, Task Structure, and Leader's Positional Power. The Managerial Grid Model (Blake & Mouton, 1964) considers the a leader's situation across two axes, Concern for People and Concern for Production, and that correctly assessing and matching a leader's situational context to the right point on the graph prescribes the best approach. House's Path-goal theory prescribes four different leadership behaviours an individual should affect, each appropriate for a different situation (House, 1971). Even while modern studies of leadership have

shifted towards a skills focus, they still recognise the situational context as fundamental (Ekvall & Arvonen, 1991; Mumford et al., 2000).

Some leading researchers highlight the importance of an interrelated personsituation, non-dualistic understanding of leadership (Vroom & Jago, 2007; Sternberg & Vroom, 2002). While this may well be the direction to a greater understanding of leadership, the model developed by Vroom & Jago (1988) has been criticised for both being too complex (Yukl, 2012), and when collapsed to provide generalised rules (Arnold et al., 2016) has been criticised for being too general to be of much use considering they may still be overridden by factors arising due to situation or personality (Burnes, 2017).

Transactional management and transformational leadership were conceived as styles appropriate for either maintaining and opposing the status quo (Burns, 1978). This conception of the situation as a dichotomy between affecting change versus reinforcing the status quo places these two styles within leadership being understood as contingent on the situational context (Bass, 1985;1990; Hunt, 1999).

3.3 Decision Making with Ambiguity and Uncertainty

If a manager's term is considered as a series of decision-making events, one way a management style could be understood is the aggregate sum of choices made by a manager. This view places decision-making as fundamental to how a manager operates. Arguably the most well-known decision-making model is described by Drucker (1967) and based on the Rational Choice Theory (Adam Smith, 1776), which emphasises a Scientific Method aligned approach to decision-making. This decision-making model addresses ambiguity and uncertainty by making three assumptions: agents have complete information to make optimal decisions, their preferences remain consistent and not context-dependent, and they always make decisions to maximise their own self-interest.

The Vroom-Yetton Model (1973) is a decision-making model which "resides at the intersection [...] of leadership and decision-making" (Sternberg & Vroom, 2002, p309). It prescribes the leadership style one should take depending on a set of 11 variables, which are evaluated using a set yes or no questions to travel down the decision tree. The model, however, does not describe the method of how an individual should go about evaluating each of the 11 variables in reaching their yes/no decision. The questions, such as "Is the quality of the decision important?", also make assumptions such as the leader has all the information required to answer such a question. It, too, could be argued the answer to such a question lies upon a spectrum of plausible answers and isn't sufficiently described in a binary fashion (Sternberg & Vroom, 2002).

Shifting from the assumption that agents exhibit perfect rationality, Bounded Rationality attempts to recognise how the decision-making process is made in real-world conditions (Simon, 1990; Cyert & March, 1963; Posen et al., 2018; Wall, 2023). Evidence shows agents often engage in behaviour to 'satisfice' outcomes rather than maximise outcomes (Simon, 1955; Hutchinson et al., 2012), responding to a lack of information and the time-pressure common to decision-makers, and instead look to rule-of-thumb heuristics to make decisions (Gigerenzer et al., 2011). Some scholars go further to suggest that these heuristics are used as mental shortcuts, allowing agents to make decisions in an automatic way without deliberation (Kahneman, 2011; Cialdini, 2014). An assumption which has been challenged has been the accuracy-effort assumption, whereby the more effort, time, and computational power the higher the accuracy of the result. Some research shows that simplifying heuristics, previously thought to only provide approximations, can outperform more complex models (Keller et al., 2010; Gigerenzer & Brighton, 2009; Gigerenzer et al., 1999; Marewski et al., 2010; Serwe & Frings, 2006).

A third type of decision-making that is common but often derided in popular discourse as not objective and lacking robustness is intuition. Making decisions in the absence of a conscious-cognitive process does present opportunity for unwitting or unconscious bias to creep in, however these areas of bias are the explicit focus of research when reframed as ecologically rational heuristics when they positively affect the decision outcome. The decision making process for intuitive decisions is also much quicker. Some research suggests heuristic-based decisions are synonymous with intuition, but there is disagreement over whether heuristics are non-deliberative. Patton (2003) identifies three sources of intuition: Innate response that is not learned by inborn, General experience learnt over the course of a lifetime, and Focused Learning resultant from deliberate efforts to exhibit intuitive responses. A key study (Khatri & NG, 2000) found intuitive synthesis to be positively associated with organisational performance in unstable environments, but negatively associated in stable environments. If the view that the situational environment is changing at an accelerated pace is assumed, as outlined in section 1, this suggests that intuition serves organisational performance in the contemporary business environment.

3.4 Aligning Organisational Culture and Activities

It has been argued that the goals and values of effective organisations are aligned with those goals and values of the leadership and staff within the organisation (Schein, 1985; Brown, 1998). Burnes and Jackson (2011) build upon this and argue that in order for an organisational change to be successful, the approach, method, and management of the change must be aligned with the organisational values. They identify multiple studies which explicitly link particular values with particular approaches to change in organisations.

Bouckenooghe and Devos (2007) argue that for organisations which demonstrate values such as trust and openness, using a change management approach that is participative is likely to be most successful. Wooten and White (1999, p9) argue that the core values of "a humanistic orientation, and an emphasis on organizational effectiveness", which underpin Organisational Development, make such approaches particularly suitable for organisations with postmodern values. Burnes (2009a; 2009b) also argues that organisations are only likely to promote ethical-participative behaviour if they approach change with behaviour that is in alignment.

This area of research could be interpreted to indicate that those organisations exhibiting this set of behaviours could attribute their success to the devotion to those underpinning values themselves. However, it may be more plausible to consider the alignment and coherence of the organisation with the same set of underlying values as the source of success. This idea of alignment is supported by Schein's three levels of organisational culture (2010) whereby assumptions inform values which in turn inform artefacts such as behaviours.

3.4.1 Value Paradigms

Each of these three studies provide descriptions of organisations operating from a Pluralistic-Green Paradigm (Laloux, 2014, pp31-34), the basic concerns of which are consensus, collectivism, common bonds, egalitarianism, pluralism, multiculturalism, transformative relationships, sensitivity, reconciliation, and fairness. Laloux outlines the breakthroughs of the Pluralistic-Green Paradigm in Organisational Development as: "Empowerment and decentralisation [of power]", "values-driven culture and inspirational purpose", and a "Multiple stakeholder perspective" (Freeman, 1984). Laloux describes the Pluralistic-Green Paradigm as one stage of human and organisational development (2014, p35), with reference to supporting works in other fields:

"This stage corresponds to Loevinger's and Cook-Greuter's "Individualistic", Torbert's "Individualist", Wade's "Affiliative", Graves' "FS", Spiral Dynamics' "Green", and others; it is often simply referred to as *postmodernity*." -Laloux, 2014, p334

Author	Year	Title	Paradigm Name
Graves	1970	Levels of Existence: An Open	FS
		System Theory of Values	
Loevinger	1987	Paradigms of personality	Individualistic
Wade	1996	Changes of Mind: A Holonomic Affiliative	
		Theory of the Evolution of	
		Consciousness	

Beck & Cowan	1996	S Spiral Dynamics: Mastering Green MEME		
		values, leadership, and change		
Cook-Greuter	2000	Mature Ego Development: A Individualistic		
		Gateway to Ego Transcendence?		
Torbert	2004	Action Inquiry: The Secret of	Individualist	
		Timely and Transforming		
		Leadership		
Laloux	2014	Reinventing Organizations	Green	

Table 1: Corresponding paradigms to Laloux's Pluralistic-Green.

3.4.2 Memes, ^vMemes, and Spiral Dynamics

The term 'meme' was coined to name the phenomenon where an idea or behaviour is transmitted between persons, throughout generations and civilisation. Whereas genes carry genetic code, memes carry social code – conceptual or behavioural instructions (Dawkins, 1976). Beck and Cowan expanded on the work of Graves (1970) and infused it with the language of memes, which has proved a popular conceptualisation of social propagation. They write: "Spiral Dynamics proposes the existence of another kind of wave-like meta-meme, a systems or 'value meme' ('MEME). These 'MEMEs are organising principles that act like big attractors for the content rich memes Dawkins and Csikszentimihalyi describe." (1996, pp.31-32). They go on to argue that stable and cohesive individuals, organisations, and societies are grounded in those 'MEMEs present in the social world which are congruent with the same worldviews they hold or embody. "'MEMEs encode instructions for our world views, assumptions about how everything works, and the rationale for decisions we make." (Beck and Cowan, 1996, p32).

As shown in Table 1, Laloux's Pluralistic-Green Paradigm is equivalent to the GREEN

MEME. Moreover, in the sense that if Schein's three levels of culture provides a way to
interrogate and understand one target culture, a comparative analysis understanding
of multiple cultures could begin with an assessment on a Memes basis and use the
relationship between MEMEs in the Spiral Dynamics model as conceptual tools for
understanding the points of difference and similarity between multiple cultures
(McGuigan & Popp, 2016), similar to the use of Trompenaars's model of national
culture differences (1997) and Hofstede's cultural dimensions theory (1980).
Preceding GREEN on the model is ORANGE. The basic concerns of the ORANGE
MEME are achievement, autonomy, independence, manipulation, material pleasure,
being strategic, and playing the game to win. The underpinning system is
entrepreneurial: change is the nature of the world and within it there are winners and
losers. How to win and gain advantage over others is through innovation and
manipulating the scientific laws which ORANGE believes to reign over politics,
economics, and human events. The Leadership and management approach in

ORANGE organisations is predict and control. It centres around the belief that people are rational-economic actors, who are replaceable parts within the mechanistic organisation, that people are meant to be jockeyed by external forces as they seek to maximise their gain and will who do almost anything with the right economic incentive applied (Laloux, 2014, pp.25-30; Beck and Cowan, 1996, p46).

3.5 Authenticity

If a manager should need to change their leadership style in accordance to situational factors, how do they retain a sense of truth, or authenticity, when projecting a different version of themself? While we use stories and create narratives to make sense of our lives (Linde, 1993), managers are required to tell different stories to senior or junior colleagues to satisfy the different situational contexts of their different audiences (Sims 2003), casting more doubt on the role of authenticity in leadership. Authentic leadership attempts to develop a model of leadership using leader's authenticity as a talisman through which ethical conduct and values can be focused. Gardner and Karam (Gardner et al., 2021, p.4) argue "ethics lies at the heart of leadership because the actions of leaders have consequences for others" and therefore an internalised moral perspective is a core component of authentic leadership. Gardner uses a definition of Authenticity as a practice with four component parts: self-awareness, unbiased processing of self-relevant information, behaviour, and relational (Kernis, 2003, p13); an individual exists on a spectrum and is considered more or less authentic if they act more or less authentically. Ibarra (2015, p.4), however, argues that if a leader holds a "too-rigid definition of authenticity [it] can get in the way of effective performance." She offers three overlapping definitions: Being true to yourself, Maintaining strict coherence between what you feel and what you say or do, and Making values-based choices. Both Kernis' and Ibarra's conceptualisations of Authenticity rest upon an individual's self-concept being composed of multiple self-schemas; each self-schema of an individual is a star that may shine more brightly than others in a given moment but it is the interrelation, the perspective shift when viewed as a constellation, that creates the gestalt self.

4 Methodology

4.1 Research Approach

This study focuses on the experiential knowledge of participants, which are highly subjective, using an interpretive lens of organisational analysis (Burrell and Morgan, 2016). This study uses an inductive research methodology: analysing raw data to identify emerging themes, concepts, and explanatory theories (Thomas, 2017). While

centred on the subjective, research is undertaken with a pragmatic approach to explore the possibility of temporary links between theories by recognising important factors or artefacts which exist outside the subjective realm. The Four Quadrants metatheory was used as a conceptual tool to decipher arising complexity in the study (Wilber, 2000, p61-73).

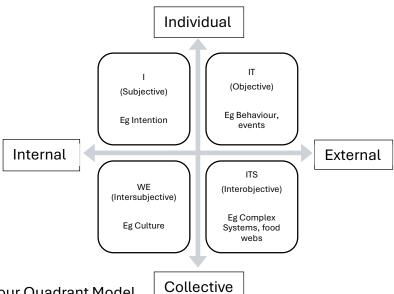


Figure 1: The Four Quadrant Model

Open questions are used in the interviews to provide opportunity for participants to give detailed and in-depth answers. They also allowed for the researcher to probe further into a topic, and for the researcher and participant to ask clarifying questions as desired. A strength of this approach is the opportunity for the research to gain access to introspective insights from the interviewee's point of view (Sternberg & Sternberg, 2012). Semi-structured interviews were chosen for this study as a way of presenting an opportunity for participants to deliver a holistic description of their experience working in leadership positions. A conversational approach was adopted by the interviewer in an attempt to minimise interview structure that may impede participants' capacity to be forthcoming. Another benefit of using interviews is a greater degree of certainty in data collection, versus a lack of researcher agency when depending on independent questionnaire responses.

4.2 Data collection: Semi-structured Interviews

Semi-structured interviews were used to gather primary data on the subjective experiences of leading held by participants, using a purposive sample of six leaders working in or with technology in UK-based companies. This included asking about their broader career journeys, but with a focus placed on their current roles of leading while working in or with technology. Interviews were based on an interview schedule of 24 questions across four themes and eight sub-themes. Using a qualitative approach to this research grants the participants greater freedom in the content and delivery of how they can express themselves within the interview, enabling greater quality of detail.

Each session was conducted online via Zoom and lasted between 50 and 70 minutes. Two non-probability sampling methods were used: four of the six participants were recruited using convenience sampling from the researcher's personal network. Two of the participant was recruited using snowball sampling method via recommendation from other contacts.

Participants were advised at the beginning of the interview that the session was designed to be conversational, and that more importance should be placed on discussing something the participant finds relevant to a question, rather than all of the interview topics necessarily being discussed during the session. Using a conversational and semi-structured approach while interviewing did provide responses which were highly detailed and descriptive. The researcher attempted to establish rapport before starting the interview proper, and in this capacity benefitted from the pre-existing relationships they held with most of the participants.

4.3 Data Analysis: Grounded Theory Approach

This study followed a grounded theory approach (Charmaz & Thornberg (2021). This study sought to iterate between the data, emerging themes, and existing explanatory theories throughout the analysis. This process was limited due to the scope of this study.

I was interested in understanding what informs how a leader decides not necessarily on a single action, but how they arrive at an encompassing leadership style. Of course this could be described as a series of decisions, but this perhaps attributes too much of the outcome to an individual's agency. Invariably leaders enter into situations with incomplete information or without time to conduct a comprehensive analysis. As previously mentioned, ambiguity and uncertainty, or the perception thereof, is increasing. I thought that perhaps decisions made using intuition, improvisation, or "bricolage" (Levi-Strauss, 1996, in Weick, 2001, p62) could be both informed from and reflected in their personal values as a way of meaning-making (Drath & Palus, 1994). Some research found the most effective people in these situations have access to an "Inner-sense [which is] more than intuition; it includes experience, and also instinct." (Hodgson & White, 2003).

First, I conducted a literature review of the leadership theories where the features of the situation are determinant in the leader's success, as outlined in the literature review section. I synthesised three themes from the literature: *Navigation between different authentic self-concepts*, *Stories for self-justification*, and *Impact of values on changing leadership approach*. Second, I used these themes to form the basis of my interview schedule, consisting of 7 subthemes and 21 questions. I also decided to include an Introduction section to facilitate rapport building, which included questions about participant's role and the organisation structure, which are both key elements of the

situational context. Third, I conducted the first three sessions using the Interview Schedule as a basis for the semi-structured interviews. While analysing the first three interview transcripts, I noticed common codes starting to appear around reading and understanding people when choosing leadership style and using data in decisionmaking. Fourth, I conducted the final three sessions and during analysis more themes began to emerge when all six transcripts were considered together. A common theme of individual accountability began to emerge. Brining codes from earlier interviews together with codes in later interviews showed emergence of a theme around listening to people as very important. This was similar and related to reading and understanding people so I collapsed these into a joint theme of Social Perception and Cognition. I noticed the findings on Authenticity seemed to run along a range of responses and I used the three definitions provided by Ibarra (2015) to help categorise. I combined these with participants' responses to whether they feel the need to change themselves when leading to create three groups relating how participants described authenticity and how they responded when asked if they feel the need to change themselves or present differently while leading.

5 Emergent Findings

In this section I explore how leaders interpret their situation and decide upon which situational factors impact a change in their leadership style. I also present different conceptions of Authenticity and how this relates to a change in leadership style.

5.1 Use of Data

When discussing how participants make decisions, one common theme was the use of quantitative data and analysis, to inform leader's decision making and narrative belief and construction. Using data was mentioned by three participants when discussing conflict resolution in a technical setting. All three participants placed focus on what objective data may be able to tell them about an event or product. All three participants reported that they seek to remove emotion from the decision making process and favoured making rational decisions based on the data available to them.

TB: "I believe data plays the biggest part, more so than emotions."

TB: "Something should be stated as plan fact, and if you can refer back to that factual page, then everyone should be on the same page."

TB: "[Sometimes colleagues are] potentially pushing their luck. And as soon as they try and do that: data, data, data."

CD: "Like, do we have any data to back up where our stance is, or vice versa? Do you have any data to back up your stance? If we have differing data, great, let's discuss it. Why is the data different?"

CD: "if there's data to back any- either argument up, let's talk through and discuss it. If there's no data, let's discuss it: Do we need to get data? Is this something we need to monitor? Is it something we need to look at?"

RH: "I always tend to look at the facts and the data rather than emotions."

RH: "If I have to make a decision or if I have to be decisive, I tilt towards: Can I have the data? Can I have the metrics? Can I have the facts to make a sensible decision? Rather than the loudest person in the room wins."

5.2 Social Perception and Cognition

This study uses the term Social Perception and Cognition as an umbrella term for two related emergent themes: *Listening to People*, and *Reading and Understanding People*. These two themes have been collapsed into one as they each provide a way of making sense of other people's perspectives.

5.2.1 Listening to People

Three participants mentioned the importance of listening to people when leading and managing people in their role. Each of these participants linked listening to people as a crucial way of understanding the perspectives of others. When discussing the guiding values of their leadership approach, RH highlighted listening to people as "super, super important". When discussing reconciling conflict between stakeholders, BQ said the most important thing they do is listening. CD described how they have found collaborative conversation as much more effective than issuing mandates to people. As the three interviews progressed, it became clear the term "Listening to people" meant more than simply listening comprehension, but instead was used to mean listening comprehensively in an attentive and empathetic way.

BQ: "I'm lucky that I have the ability to listen."

BQ: "The number one thing that I will do will be to listen, because actually, most people just want to be heard."

CD: "Let's like, bring this into a collaborative conversation, because I find that anytime that you're having conflict, if you just try and mandate something to someone, they're just not gonna listen [...] So I would always much prefer to have a discussion about those things."

RH: "Super, super important and super critical to genuinely listen and actively listen [...] Like not just pretend to listen, to respond, but active listening and truly empathising."

5.2.2 Reading and Understanding People

This theme arose when discussing in interviews how participants described their natural or resting style when managing others. Reading and Understanding People is an ability of leaders that informs how they may choose their style when interacting with others. It is the ability to get a general sense of another person or intuit their thoughts and feelings through general or peripheral cues and information. Crucially, Reading and Understanding people is used without asking direct or explicit questions to the individual being regarded. One participant discussed the skill as something which they have built up over their career without setting out to intentionally improve it.

CD: "when people first join the team I set a very clear expectation with them of like: 'Hey, if you need something from me, my door is always open. I'm never too busy to help you, because my job is to help you, and your job is to help our clients. So if you need me, come and talk to me. [...] I like that style because I find that it fits with most other individual [...] personalities and how people like to work, because [it] fits in with your people that are a bit more introverted and just wanna crack on and get on [and] the more social people will tend to reach out more. So I find that it's a nice balance."

BQ: "I'm naturally introverted. But I do value relationships and people, which is quite common for introverted people to be like that."

BQ: "this is the thing, If they haven't been hired with the [belief] that we think they can behave [in the way we expect them to then it won't work out] because I think it's actually inherent into that person."

GD: "Especially when I'm working with new people, or if I get a new cohort coming in, I'm quite good at reading people and understanding their needs and how I should interact with them. It kind of goes hand in hand with a lot of the coaching that I do as well, so it's very similar to teaching someone and understanding their learning styles. [...] So typically, it's quite easy for me to understand how I need to manage someone or how I need to interact with someone initially."

GD: "I am very good at reading body language, and understanding what people are thinking ahead of time. [...] I haven't actively gone out and tried to learn to be good at this. I've just, I've naturally, unconsciously, passively done it."

GD: "I feel like I'm relatively good at 'manipulating' people, but I think 'manipulating' has a very strong stigma against it in that it's usually in a malicious way [which is not my intention]"

RH: "understand what other people are saying and what they're going through. And what are they meaning to say? [...] every person has their own journey. They're going through good, bad, difficult times. We all do. So it's really about really understanding the perspective of that person."

5.3 Declared Values

One of the themes identified in the Literature Review is the *Impact of values on changing leadership approach*. Participants were asked to describe the core values which guide their leadership approach. Two common values emerged during coding of the interviews: Individual Accountability, and Trust in Others.

5.3.1 Individual Accountability

As this study progressed, a group of codes began to emerge across the interviews when discussing with participants the core values at the heart of their leadership approach. While each participant responded with variation, they are all concerned with Individual Accountability for their and others' work and represent a commonly held value across the sample. These are collated in Table 2 below.

TB: "Like, can I can I be, say true to myself, and say, have that integrity to myself, to have a, say, consistency in what I'm doing? And it's something that we've touched on a lot today is the idea of: Am I consistent with my thoughts? Am I consistent with my words? Am I consistent with my actions? Like, do I have a dedication to the integrity of a situation, the integrity of our team, the integrity of the wider organization?"

TB: "All I can do is try and be is, say, have as much integrity as possible and make sure I'm sticking with my actions and I'm confident in my actions. Whether they're good in the short term or the long term, I've got reasoning and data to back up those actions."

GD: "[I think a core value of mine is] being conscientious, wanting to be able to do the job as best as it can be done"

GD: "There are people that are conscientious and will try really hard, no matter what [...] And then you have [people who] aren't really trying particularly hard.

GD: "it can be a challenge when you're working very closely with people that *know* that [they] can take advantage [...] of the freedom that we get given."

CD: "So it's all about owning an issue. If you if you say you're gonna do something [then you need to actively be] doing it."

CD: "I know that with ownership in particular [...] it really irks me when people don't do what they say they're gonna do. Or [when] they try to avoid taking ownership of something [...] that really grinds my gears."

BQ: "If I've hired wrong, doesn't matter how much of that training [...] that you could do, you can't change people. [That's] the way that they are. You can train people all day long. You can give them the skills, but if they don't have that that the inherent [drive], you can't change that. You can't, you can't create that, you know. It's like a like a lazy person will typically always be a lazy person, you know, and a High Flyer will always be a High Flyer, and you could probably train the High Flyer to do something

else. But you couldn't, you can't, it's very difficult to train a, you know, a lazy person to not be lazy. [I'm making] a caricature."

RH: "[I think] autonomy and empowerment can work when there is accountability and ownership as well. So it's a balance, right."

Participant	Individual Themes	Aggregate Theme	
TB	Integrity		
GD	Conscientiousness		
CD	Individual Ownership	Individual Accountability	
BQ	Conscientiousness		
RH	Accountability & Ownership		

Table 2: The distinct but overlapping motifs found in the analysis of five participants.

5.3.2 Trust in Others

A recurring theme across all participants was the trust afforded to others by leaders. Trust was not given unconditionally, however, and ultimately placing trust in others was set within the context that those others will perform highly. One participant believed that they were able to place trust in their followers because he was ensuring they received tasks which met their individual preferences. Another participant responded that they trust their team, but still spot checks their work. When participants were asked about resolving a disagreement, two participants talked about the idea of Disagree and Commit, which is a form of trust in others. Those two participants explained that they may still disagree with the proposed action or plan, after the discussion and arguments have been set out to the team, but the resultant judgement is they choose to move in another direction, and crucially do so while supporting the decision moving forward.

TB: "I have my team's back, my team know I have their back, my manager knows I've got their back, my wider org knows I've got their back."

GD:" So typically what I've done with the coaches that I work with is try to understand the areas that they enjoy, because typically they're going to perform best of the things they enjoy doing. [...] I know I would perform best at the things I enjoy doing."

CD: "I put a lot of trust into my people [...]I like to put trust in people. I like to trust that they're doing the right things. I will then validate that and spot-check how they're getting on and pieces like that."

BQ: "I'm not gonna micromanage someone [...] I want to bring people in that that can work autonomously, but with the right direction [and] with a clear path and a clear goal."

SP: "definitely trust and honesty [are] underlying for everything."

SP: "I think you could probably say [my leadership values are]: trust, trust, trust."

SP: "There's also a concept of Disagree and Commit [...] Like, I don't think it's the best, but so long as you've accepted all the risks, so long as we're all aware, it's okay. And now I'm fine with it. I'm in it with you. I'll help you enable it."

RH: "Empowering people is key to me rather than controlling the narrative, and rather than sort of, you know, that command and control [...] my values more about trusting people and showing that I trust them [...] with the right alignment of the vision and the goals."

RH: "I sometimes have to Disagree and Commit [...] if others in the room think that's the right thing to do. [That] doesn't mean that you just check out. You still support the team, but you need to understand that [...] we all have our ways of thinking which are formed by the experiences and the perceptions we have seen in life. But those might [not always be right]. Other people have their own thinking."

5.4 Differences of Authenticity

Three groups of responses emerged during the study when participants were asked whether they change their leadership style or the way they present themselves depending on the situation. Group A are those who declared they don't change their style or how they present themselves. Group B are those who declared they do change themselves and hold a clear belief in authenticity as a key value. Group C are the participants who reported they do change themselves and also reported a more opaque belief in authenticity.

5.4.1 Group A: Authentically Rigid (Absolute Authenticity)

When asked if participants change their leadership style or have felt the need to present themselves differently while leading, three participants declared they do not change. Participants were asked what authenticity meant to them. The three participants in Group A strongly believed that being authentic is important. TB and SP described authenticity as being true to themself. TB also used consistency and integrity as ways of describing how they are authentic. SP and BQ described authenticity as their thoughts and feelings being reflected in their actions. BQ also described authenticity about being centred on the values of honesty, openness, and transparency, which together are one of their company's core values.

TB: "I'm being authentic to myself, for as long as I'm for as long as I don't make any decisions in the day that I'm gonna regret later on in that day. [...] I can make some pivots, I can make some changes that with data and [given] time, I'm going to think that wasn't the best choice.

TB: "Being authentic to myself [is] if when I made that decision I was making it with best intentions in mind. So I can be authentic to myself where as long as I don't regret

decisions I've made that day. I might regret it with time. I might have my opinion be changed. I might be shown data that means that my initial opinion was wrong, and I'm happy to accept that. But I'm only going to define myself as authentic if I'm doing things then and there with the best of my knowledge."

SP: "I don't have to change who I am because I entered this new team and they want X, right? I should still be able to show up as [SP], who does X, who likes this, who's gonna be a mom, a wife, has a life, which is all of this. And then is also a leader, and will do this and builds on trust and is capable. You see what I mean, like [...] Who you are as a person and a leader, and that should just still show up in every decision and every- who you are."

BQ: "[Authenticity] means honest, open, and transparent. And it means... well, those would be the words of it. But actually, it's living and breathing those words on a day-to-day basis. [...] You're showing that [...] you're authentic."

BQ: "No, I typically won't change. I'm pretty comfortable in the way that I -who I am, and the way that I lead, and the way that I work with people that I don't change myself. [...] I don't think I do!"

5.4.1.1 Group A₁: Consistent Style with Changing Content and Format

Group A_1 is a subgroup of Group A. Group A_1 emerged where participants were adamant in not changing their style but were familiar with changing the content or format of their communication depending on who they were talking to. TB reported that their candour or demeanour doesn't change, but "the content may change as we go up and down the hierarchy." He also explained during the interview that he and his team are the foremost experts in the product they develop and support. SP mentioned asking colleagues or stakeholders directly what their preferences are in communication format and regularity. She explained that these change a lot, for example her manager prefers PowerPoint while the manager above them prefers whiteboarding, and another colleague prefers summary emails prompting "Action Required" or "No Action Required".

TB: "I think personality-wise, tone-wise, tenor-wise, no changes. The only thing that would typically change is I guess the subject knowledge. So depending on the experience that is in the room, would depend on how deep the data goes. [...] the content may change as we go up and down the hierarchy. However, my candour, my demeanour, would not change whether I'm talking to one of my fellow engineers, or whether I'm talking to a director."

SP: "So it has evolved as a learning. Again, my natural instinct would be to give all the information, because that's who I am. [...] But then, as you evolve into the leadership role, some people just giving you 5 min of their time. Can't tell them everything, [that's] not what's gonna work. [...] But now I'm more conscious. I think now I'll almost do a mental map of: when I talk to X, what do they like? How do they like it? And

sometimes I even ask that information. Actually, now, going into the first one or two meetings with [...] a new stakeholder or a business partner I just ask: 'what's best for us to do this?', 'How often would you like to meet?' [...] so I think some of those questions are now more explicit [...] and then some it's like as you on build on. You see what they're interested in."

5.4.2 Group B: Authentically Flexible

Group B is categorised as participants who each reported changing their leadership style or approach depending on at least one situational factor, while also believing authentic is of key importance. When asked about changing his style, RH raised the importance of considering each person as an individual and that his leadership style needs to be considerate of each person's individuality. When asked what authenticity means to him, RH described authenticity as being true to yourself and also acting in accordance with how he thinks and feels. RH describes this through conversations with his CEO where he noticed his input was appreciated more when his communication more closely reflected how he felt rather than trying to pretend.

RH: "I think for me it's situational leadership. So you don't you don't go with the with the mindset that *this* is how I'm going to lead my team [...] or *this* is how it's going to work every time when I go in my one on one with a person or a second person or a third person, those three individuals are totally different people, right? [...] how they talk, how they react to things et cetera."

RH: "So as a leader, it's very important that you don't generalise, you [need to] understand what the motivations [are] and how this person operates and what motivates them, what doesn't motivate them, what works for them, what doesn't work for them."

RH: "[...] I feel strongly that if you're authentic and honest, people appreciate that and connect to you more. [...] what I've observed is my CEO, who I report into, the more honest conversations I have with him, the more he appreciates me, right. Which might have been my perception ten years back, but now it is. I have noticed that if I go to him, have an authentic conversation, be honest with him that this is what I'm feeling, this is how I'm feeling, I'm not comfortable with something or I'm comfortable with something, he would appreciate that more rather than me pretending."

RH: "So I think [authenticity] is a very, very key thing in my perspective when it comes to leadership. That is being you, being yourself, being authentic, being genuine to everyone. Absolutely."

5.4.3 Group C: Authentically Adaptive

Group C are those participants who reported they do change their leadership style or have felt the need to change the way they present themselves while leading. They believe authenticity is important while holding a vague definition of what authenticity is.

When asked what authenticity means to them both participants in this group defined authenticity as being true to themselves, but with the added complexity that they may have more than one self. CD described having a work persona and a personal persona and that authenticity is already complicated between the two. He also described becoming aware of the term "personal branding" within their company and has since learnt ways of changing his presentation or behaviour which can influence how others perceive him. He suggests that changing himself in these ways is also important to gain promotions once reaching a certain career level when the added dimension of political power within the organisation becomes more important. GD was the least reverential of authenticity. He describes how he will change his behaviour when interacting with someone to achieve an outcome he believes is best. GD says that he can change himself and remain authentic to himself so long as he has good intentions at heart for both parties involved when manipulating or influencing people.

GD: "I would say personally, there's a time and a place for authenticity in a way."

GD: "Authenticity's an interesting word, because I'm always, I would say, authentic, but I wouldn't say I'm naturally being myself in a lot of cases which obviously sounds counterintuitive"

GD: "I think there are edge cases where I have to change the way that I'm interacting with someone in order to get an outcome that I want. [...] And so I think... the ability to be manipulative without being malicious, having good intent, if there's a word that fits that very well, I would say that's where I would say a lot of the non-authentic stuff comes from. So, in a place where you have to get an outcome without being your natural self, that comes up quite a lot. And so authenticity, I guess, would go out the window at that point. But I think if you're not being malicious, you're probably always being somewhat authentic."

CD: "Knee-jerk reaction: Authenticity is, you know, being your true self. If you ask me what business authenticity is, I think that most people have two authentic selves. You have your business self, and you have your personal self."

CD: "We often call it personal branding in the business I'm in, which is a very Americanized term. And actually, I did a lot of research on personal branding when I was kind of becoming a leader, because I wanted to understand, like, how do people see me? And I suppose authenticity could be described as how someone sees you, and whether or not they believe that is your true self."

CD: "So... I think authenticity is... I don't know. Personal branding really, really throws a spanner in that one for me. I would say that if someone is authentic, they are true to themselves. Whether or not that's actually themselves, or the themselves that they have put forward to present to you... I think that that's an impossible thing to know, unless you *truly* know who that person is, and you've spent time with them outside of work and inside of work and know them inside and out."

CD: "A piece of advice I was given many years ago: that once you reach a certain level, moving further up the ladder becomes a little bit more political [...] It's not about what you know, but it's about [...] Who's good books are you in?"

CD: "So, generally speaking, when I'm interacting with anyone that is in a more senior position than me, I tend to be a little more formal. Just in terms of my mannerisms, like how I dress: like I might put a polo shirt on if I'm joining a meeting with loads of VPs in it. Generally I will be, you know, less sweary, is probably another one as well. Like, I'll just try and adapt myself a little bit to be, to seem a little bit more business mature and a little bit more formal. When I'm dealing with people in my team I'm a little bit more like 'myself', I think is probably the word I would use. In terms of: I'll be a bit more jovial, and I'll be a bit more conversational."

6 Discussion

6.1 The Use of Data

Using Data in operations is commonplace and increasingly so as developments in cloud computing (Marston et al., 2011; Abadi, 2009) have proved to be transformational in the way businesses operate (MIT Sloan Management Review, 2016; Zizic et al., 2022). Technical managers are used to making evaluations and decisions based on data in their technical work, and often have input into the performance indicators used in organisations (Grove, 1983; Doerr, 2018).

By way of the study's sample, all of the participants have extensive technical training: four of the six hold degrees in quantitative sciences, and the other two participants are among the most technically knowledgeable in their organisation having gained extensive knowledge through experience. It is plausible those in this sample have a disposition towards using and trusting objective data in making decisions over other available information, based on their previous experience. This disposition or deference towards objective information works well when it reflects the environment the decision is made in and those assumptions bounding the environment hold true. The pursuit of objectivity being a successful strategy is contingent on objective facts being present in the environment and that the appropriate objective measures of an environment are taken. This deference to available data when making decisions could present an anchoring bias, which involves over-reliance on a single tool. "I call it the law of the instrument, and it may be formulated as follows: Give a small boy a hammer, and he will find that everything he encounters needs pounding." (Kaplan, 1964, p28)

As the sample of this study are leaders working in or with technology, participants are able to use data as a language to communicate, in which their team are all fluent. Using data is therefore shown in this study as one method used to achieve a shared

understanding when reconciling conflict. Placing focus of the group on objective measures of the external environment provides a method of generating a shared understanding between multiple individuals by travelling from the top left subjective "I" quadrant to the top right objective "IT" quadrant. Removing interpretation of events from a conflict and using observable objective measurements presents the opportunity for reconciliation and shared understanding.

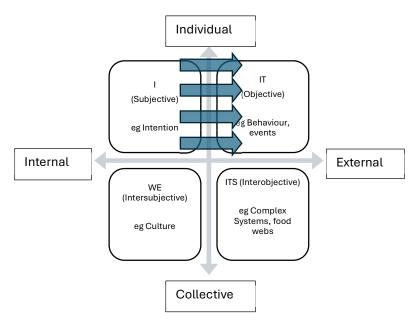


Figure 2: Four individuals Using Data to gain a shared understanding of the objective environment, thus reconciling conflict.

6.2 Social Perception and Cognition

This theme is very similar and likely equivalent to interpersonal Intelligence (Gardner, 1983) or Emotional Intelligence (Goleman, 1995) which various studies have linked to leadership performance (Palmer, 2000; Prati et al., 2003; Kerr et al., 2006; Sadri, 2012; Maamari & Majdalani, 2017). Social Perception and Cognition includes *Listening to People* and *Reading and Understanding People* as components, both of which are also considered part of interpersonal intelligence in existing literature. Within the context of the study, *Listening to People* was equivocated to Active Listening during the analysis as it bore many of the same qualities (Weger et al., 2014) and was used in the same way to build trust and understanding between speaker and listener (Hoppe, 2007).

Interpersonal intelligence is demonstrated too as a method of reaching a shared understanding. This method involves gaining an understanding of other people's internal thoughts an feelings, to reach a consensus based on subjective emotions. This

strategy is therefore a way for an individual to travel from the top left "I" quadrant to the bottom left "WE" quadrant.

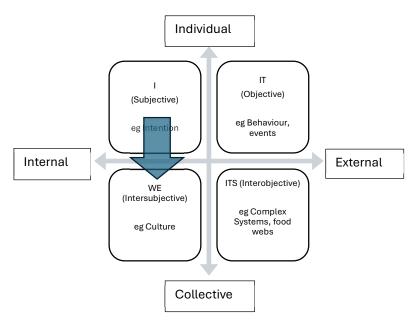


Figure 3: One individual using Emotional Intelligence to gain a shared understanding with their followers, thus informing a change to an appropriate leadership style.

6.3 Individual Accountability

Accountability as being associated with leadership is supported by literature (Hall et al., 2017; Melo et al., 2020) although there is limited empirical evidence due to the few number of studies relating accountability and leadership in the area of business, with most studies focusing on an education setting (Melo et al., 2020). That this was a common theme perhaps indicates a shared experience of managers' frustration when an individual doesn't take ownership or accountability for their work, known in literature as Social Loafing (Simms & Nichols, 2014). Ultimately of course, within traditional management thinking, it is the role of the leader or manager to be responsible for the work produced by their followers. An explanation of this in literature could be managers feel 'on the hook' for the work which their followers haven't completed to a sufficient standard and that this will, unfairly in their view, reflect negatively upon them (Hartman & Jugdev, 1998) when they have little practical control in complex and fast moving environments where by the time an issue is realised the damage may likely already have been done.

6.4 Trust in Others

Why do they hold trust in others as a value?

Intuitively, placing trust in others seems to be a natural balance to an emphasis on individual accountability: an employee can empowered and trusted to complete their

work to a high standard in the manner they see fit, so long as individual accountability is also assumed as a backstop to prevent social loafing or taking advantage of a laissez-faire leadership style that affords a lot of individual freedom. Research shows management practices have an influence on the trust relationships between managers and employees (Martins, 2002), and played a mediating role in a host of other factors including job satisfaction (Connel et al., 2003; Merriman et al., 2004; Ballinger & Schoorman, 2007; Gill, 2008; Sousa-Lima et al., 2013).

There are operational efficiencies to be gained from trust: if a leader can trust their followers they do not need to spend time spot checking or generally supervising. This reduction in non-revenue generating activity represents a reduction of overhead costs for the organisation. The emergence of trust in others as a value which guides leadership approach is the most strongly supported finding in this study, with evidence from all six participants. This commonality can perhaps be attributed to the environment technical managers work in where the complexity of tasks and implementation in specific context often requires deep domain expertise, limiting a manager's visibility on the detail of tasks. Placing trust in others could therefore be seen as a tactic by managers to reduce the cumbersome mental load that would otherwise be required, reducing the scope of complexity with which they engage.

6.5 Adaptive Authenticity and Changing Style

This study found an association between a leader's willingness to change themselves or present differently and how robust their definition of authenticity is. Participants who had the least clarity in how exactly they defined authenticity also reported changing their style often and unabashedly. This reflects the findings of Ibarra (2015) who found those leaders with too rigid definition of authenticity were less able to change their style when they needed to adapt to a new situational context.



Figure 4: Ibrarra's multiple definitions of Authenticity (Ibarra, 2015)

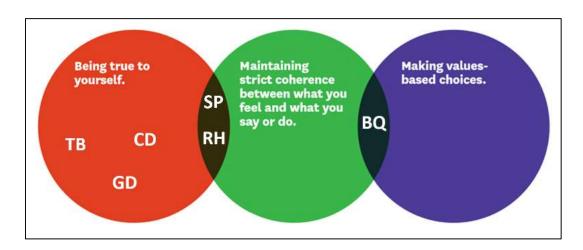


Figure 5: Participant responses on how they describe authenticity.¹

The rigidity of participant's definition of authenticity					
High				Lo	OW
TB	SP	RH	BQ	CD	GD

Table 3: Authentic rigidity was evaluated based upon analysis of participants' response and stringency when responding to the question "What does authenticity mean to you?"

Do situational factors affect how you change your leadership style?				
Group A	Group A₁	Group C		
No	I only consider the	I use Situational	Yes	
	audience and I only	Leadership and		
	change the format	change my		
	and content	behaviour based on		
	granularity.	the development		
		level of the follower		
		only.		
BQ	TB & SP	RH	CD, GD	

Table 4: Summary of how participants described how and when they change their leadership style.

It may be surprising that BQ responded that they do not feel the need to change or present themselves differently while leading, when working in an industry which is driving a lot of the increasing change and complexity mentioned in the *Literature Review*. One of the critiques of situational and contingency theories reviewed in the Literature Review section is that leaders, by virtue of being powerholders, can use their power to change and amend their situational favourability. The different types of power leaders wield to influence people is well understood in literature (French & Raven, 1959; Raven, 1965; Kipnis et al., 1980; Yukl & Tracey, 1992; Cialdini, 2014). BQ describes how

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¹ This figure is modified from the original in Ibarra (2015).

he, in his role of Managing director and sole company owner, has used a 4 stage learning framework to train and influence people in his organisation so that they behave in a manner that is consistent to how he wants to manage – thus increasing his situational favourability through use of his legitimate positional power.

Additionally, while a leadership style could be considered an aggregation of coherent leadership behaviours, RH's response could be interpreted to indicate that they should be categorised into Group C. However, the participant's explicit mention of Situational Leadership as a style led this researcher to make two assumptions in this study: that RH is accurately following the prescriptions of the style, and that an individual participant's style is assumed to have changed at the intention of the leader rather than the perception of the followers.

7 Conclusion

7.1 Summary of Study

This study set out to achieve a better understanding of what motivates or affects a change in leadership style for leaders working in or with technology. Three themes were Identified in literature: *Navigation between different authentic self-concepts*, *Stories for self-justification*, and *Impact of values on changing leadership approach*. Additionally, the study sought to identify whether there was a link between authenticity and changes in leadership style.

Using leaders working in or with technology as a sample showed links that supported existing literature. The findings show there are various factors which impact a change in leadership style, including analytical decisions using objective data and a leader's ability to leverage their interpersonal intelligence. There was a link between interpersonal intelligence for both style change and conflict reconciliation. Selecting a leadership style was informed by intuiting the thoughts, feelings and disposition of others, rather than through improvisational trial and error as preconceived by the researcher and suggested in the literature review. The use of data to make decisions also supports the existing body of knowledge and showed a congruence between objectivity in decision outcome and objectivity in decision-making. Application of the Four Quadrants framework shows using data (objective) and interpersonal intelligence (intersubjective) are both tools technical leaders use to build a shared understanding of the situation with their followers.

An interesting finding in this study is the association between a leader's willingness to change or present a different version of themselves and how robust their definition of authenticity is. There was reproduction of the findings by Ibarra (2015). Participants who had the incorporeal definition of authenticity were also those who reported changing

their style unabashedly. Most participants had rigid definitions of authenticity and reported they do not change their leadership style.

7.2 Limitations

7.2.1 Time

There are numerous limitations of this short running study. The Literature review did not include research on self-concepts or multiple selves, nor did it include research on emotional intelligence or influence and social power, both of which were revealed to be important areas revealed during the Grounded Theory Approach. Had more time been available for this study the literature review could have been both further broadened and focused through iteration. Therefore, all findings of this study should be considered provisional, emergent findings.

Additionally, the breadth and depth of Spiral Dynamics from Integral Theory makes it difficult to use, especially in a short running study. Ultimately there was not enough time to use Spiral Dynamics alongside the other tools during analysis. While proponents of Spiral Dynamics claim it has a strong empirical basis, there are few studies which interrogate using Spiral Dynamics. Time and model complexity may present two reasons why.

7.2.2 Sampling

The small sample size limits the validity of the study and prevents any generalisation to be drawn from the study. The study's sample and research design were changed after interviews began due to access issues. This study only sampled from individuals in organisations in English-speaking countries, but it did not account for the differences between organisations from different English-speaking countries. Additionally, gender balance was not accounted for in the study: one participant was female and five participants were male. This again was due to issues of access.

Each of these limitations could be addressed by forming a more robust sample: increasing the sample size would lengthen the running of the study and access to participants could be addressed through partnerships with professional management bodies or directly with relevant organisations. Accounting for differences between English-speaking countries could be addressed by sampling participants whose lives and career have been within in a single English-speaking country, sampling from organisations which operate solely within a single English-speaking country, or by employing a more advanced research design and methodology.

7.2.3 Personal Bias

It is possible the researcher's pre-existing relationships with some of the participants increased the accessibility of exploration into those participant's subjective experiences, however those relationships also introduce the risk of bias. Four of the six participants in this study are known personally by the researcher. While this aided building rapport at the start of the interview session, this may have led to social desirability bias influencing some participants' answers.

7.2.4 Ambiguity in Language constructs and concepts

Another potential limitation of this study is the conflation of authenticity with honesty, sincerity, and other words of common usage. Gardner et al. (2021) elucidate in detail through a series of letters that authenticity is often used as a synonym for sincerity. This poses a problem as authenticity often relates to the internal self of an individual, which cannot be measured in the same way as sincerity or honesty that can be measured externally by others. This study sought to mitigate this limitation by relying on the participant's definition of authenticity. "What does authenticity mean to you?". While this has some validity, it does rely upon an individual's ability to clearly communicate their definition not being conflated a strong conviction of belief. Bias could be introduced by interpreting an individual who gives a muddled or confused definition as someone who doesn't have a strong conviction in the importance of authenticity.

7.3 Opportunities for Further Research

Throughout this study, the terms leadership approach and leadership style have been used interchangeably. There is scope for further research which makes distinction between Leadership approach and Leadership style, and what their interrelationship may be. For instance, whether a leadership style can be considered as a collection of behaviours and what therefore a leadership approach may entail.

Additionally, the absence of evidence of improvisation as a practice of leadership poses questions for future research. It may be the research design was not conductive for investigating an association between improvisation and leadership. It may be more appropriate to use a deductive research approach in assessing whether understanding of improvisation or bricolage can be applied to the study of leadership.

While an association between changing style and authenticity was found in this study, development of a quantitative measure may provide stronger empirical evidence which can be empirically tested and help develop the future body of research. A balance of male and female participants should also be used for further research to improve validity of findings and their generalisation.

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