THE UNIVERSITY OF HULL

A New Theory Driven Model of Authentic Leadership.

being a Thesis submitted for the Degree of Doctor of Philosophy

in the University of Hull

by

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February 2013
“Authenticity is something which contributes to the very fibre of leadership. Without it leadership is left bereft, drifting on the ocean of emotion, following the strongest current but with no port to call home, and no foundation from which to build”

Anon
Dedication

For Mark, and those like him, who risk their lives so the rest of us can live in peace, and pursue our dreams.

At a time in history of terrorist threat with our troops deployed in far-flung places, not all of the RAF officers who participated in this research made it home. Their families kindly agreed to allow their data to remain included in the population samples used within this thesis.
Acknowledgements

“The privilege of a lifetime is to become who we truly are”
Carl Jung

Whilst this thesis is all my own original work, it would not be true, nor fair, to say that I did it alone. Throughout the 6½ years that it’s taken me to complete my research I was continually supported by friends, family and colleagues, without whom I don’t think that I would have ever have finished it! There are a number of people who deserve a special mention.

Firstly, my family; thank you for your love and support. Secondly, Julia; I am grateful for your calm logic, patience, your friendship and support. I am grateful too for the support and advice of my two supervisors: Professors Steven Armstrong and Stephen Swailes. I expect that every doctoral student has at least one occasion where they nearly give up on their PhD journey; I am no exception, and it was the support, advice, counsel and guidance of these two men, and their generosity in sharing their knowledge and experience, which enabled me to overcome the hurdles on my path.

Without Group Captain John Jupp of the RAF Leadership Centre, my research project would have looked very different. It is because of him, and his kind generosity, that I was able to access such an impressive group of real military leaders. My thanks too of course, to all of those people who kindly volunteered to participate in my research project; without them, there would have been no research findings! As it is, together, we’ve achieved the holy grail of all research; rigour and relevance!
Declaration

I declare that everything contained within this thesis; the diagrams, appendices, data manipulation and results, published papers, presentations and other outputs, are all my own work.

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of this University or any other institution of learning.

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Abstract

In recent years, the concept of Authentic Leadership has become an important area of interest and study, encompassing, as it does, personal beliefs and values and how they are aligned and lived in one’s everyday leadership experience, (Cooper et al. 2005; Avolio & Gardner, 2005; Luthans & Avolio, 2003). However, whilst the literature surrounding it is ever-increasing, the concept and construct of Authentic Leadership is fragmented; complicated by different theorists’ perspectives and compounded by a lack of empirical research, particularly within the UK, (Gardner et al. 2011).

Based on Novicevic et al.’s (2006) conceptualization, differentiating Authentic Leadership between its psychological and philosophical components, this research presents a new theoretical model of Authentic Leadership. A 4-factor model was developed and empirically tested using a classic psychometric approach, (Nunnally, 1978; Kline, 1979), and a 360° feedback design, as leaders have been shown to over-estimate their self-reported scores compared to subordinate and peer feedback ratings, (Atkins & Wood, 2002).

Critically, the model was developed and tested using real leaders rather than students, who are generally more accessible to researchers, (Lagan, 2007). It is hypothesized that the resulting model and statistical data may therefore have greater validity and applied relevance than other comparative research in the field completed utilizing student populations with little or no, real-world leadership experience. Three UK leadership populations were employed: two business leader samples and, for the validation study, senior serving Royal Air Force officers. A 3-factor model emerged
which both simplifies and unifies previous theoretical conceptualisations of Authentic Leadership.

Whilst not a direct part of the research study, the author suggests that potentially, all modern leadership failures may be traced back to a deficiency in any one of these 3 ‘Pillars’ of Authentic Leadership: Self-Awareness, Self-Regulation or Ethics. Implications for Authentic Leadership Development are identified and some suggestions for future research into the field made.

Keywords: Authentic Leadership, Authenticity, Leadership, Ethical Leadership, Leadership Development, Authentic Leadership Development, Royal Air Force (RAF), Military Leadership.
# A New Theory Driven Model of Authentic Leadership

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Chapter 1 – Overview

Introduction

This chapter sets the scene for the research project and summarises the propositions for the research premise. It explores the background to the research and details the research problem that led to its conception. The generalizability and limitations of the research are identified, and its epistemological contribution to the field of Authentic Leadership clearly stated.

1.2 Background

In 2001 the UK government sponsored a major piece of research into the state of leadership in the UK. The resulting report by the Council for Excellence in Management and Leadership, (CEML, 2002a), suggested that there is a ‘crisis’ in leadership in the UK. As an outcome to the research, CEML recommended thirty actions, (CEML, 2000b), which the Council believed would, “Provide a clear route for the nation to fulfil its aspirations and potential as a significant global force”, (CEML, 2002b p.16). CEML no longer exists. Possibly due to a lack of subsequent funding, none of the thirty recommendations suggested by the 2000b CEML action plan appear to have been implemented. If they have not, and a lack of published evidence suggests that they have not, then one cannot but conclude that there would remain, in CEML’s terms, a crisis in Leadership within the UK. In 2013, in hindsight, has this 2002 prediction finally been realised?
Corporate ethical malpractice regularly hits the media headlines. For example, in February 2008 in the UK, British Airways and Virgin Airlines were found guilty of conspiring to fix fuel prices and faced fines of more than £70 million pounds sterling, the case finally being settled in 2012. At a time in modern history of corporate scandals such as Enron and Arthur Andersen, (2001), at a time when leadership talent is deemed to be scarce, and when research has identified an all-time low of public trust in business leaders, (Ipsos Mori, 2011; CIPD, 2012), a new kind of leadership has emerged; ‘Authentic Leadership’, (Henderson & Hoy, 1983; Terry, 1993; George, 2003; Luthans & Avolio, 2003; Avolio, Luthans et al. 2004; Avolio, Gardner et al. 2004; Cooper et al. 2005; Avolio & Gardner, 2005 and Gardner et al. 2005a and 2005b).

Eagly, (2005, p.460), posits the concept of modern Authentic Leadership as emerging post 9/11, following the trauma of the American terrorist attack where, “People seek leaders who can restore confidence in basic institutions and enhance their confidence that they can collectively achieve a better, more secure world”. However, Gardner et al. (2011, p.1123), identify Henderson & Hoy, (1983), as the first attempt to define and operationalize Authentic Leadership per se, which clearly predates the 2001 9/11 tragedy. This apparent contradiction is indicative of the lack of conceptual clarity surrounding the concept and construct of Authentic Leadership, (Avolio & Gardner, 2005; Gardner et al. 2005a; Avolio, 2007; Gardner et al. 2011).

With the UK politicians’ 2011 expenses scandal and poor leadership contributing to the global banking crisis which has undoubtedly led, in part, to the current global recession, arguably, there is still a crisis in leadership. Research by Rath
and Conchie, (2008), on 10,000 followers, identified that, in descending order, the four basic needs that followers have and want to have met by their leaders are: firstly, trust - to be able to trust their leaders and be trusted by them; secondly, compassion - to feel as if their leaders genuinely care about their wellbeing; thirdly, stability - to know that change is minimised and effectively managed; and fourthly, hope for the future - to believe that things will somehow improve and become better by dint of an individual’s leadership. The significant body of knowledge that has recently emerged which is beginning to explore the concept, construct, operationalization and outputs of Authentic Leadership suggests that these are all outcomes of Authentic Leadership, (Gardner et al. 2011).

The concept of Authentic Leadership is far from a modern one. Novicevic et al. (2006) differentiate the components of Authentic Leadership between its psychological and philosophical facets. As such, the desire and search for genuine leaders who are psychologically self-aware and philosophically ethical pre-dates one of the first recorded examples of such a man: the Stoic philosopher and Roman Emperor, Marcus Aurelius, who, in his books of Meditations to himself, reflected on his leadership role as General of the Roman Legions and Master of the Roman Empire.

However, in its modern reincarnation, and as a relatively new concept, there is no single, widely accepted definition of Authentic Leadership.

“All definitions are arbitrary. They reflect choices and cannot be proved or validated ... To be distinctive and useful, the term authentic leadership has to draw attention to aspects of leadership that have not been strongly emphasised by other leadership terms or models”, (Shamir & Eilam, 2005, p.396).
A detailed review of the literature surrounding Authentic Leadership reveals degrees of agreement and areas of dissent amongst those who choose to emphasise certain elements over others within the Authentic Leadership model, as researchers, theorists and practitioners emphasise different foundational underpinnings which has led to some confusion surrounding the construct, (Avolio & Gardner, 2005; Gardner et al. 2005a; Avolio, 2007; Endrissat et al. 2007 and Gardner et al. 2011).

Avolio and Gardner, (2005, p.315), posit Authentic Leadership as, “A root construct”, which underlies all positive forms of leadership. It has also been suggested that Authentic Leadership is “A leadership multiplier”, in that the interventions that are made by the Authentic Leader are received more favourably by their followers and therefore their outcomes are more influential as the resultant impact is increased, (Chan et al. 2005). Authentic Leadership therefore provides a perspective through which all positive leadership outcomes are magnified, (Chan et al. 2005; Avolio & Gardner, 2005). They suggest that at the proximal level, positive outcomes such as trust, humility, optimism, and the quality of relationships are all magnified by the lens of Authentic Leadership. There is as yet, however, little empirical evidence to support these propositions, (Avolio, 2007; Gardner et al. 2011).

1.3 The Research Problem

Gardner et al.’s, (2011) review of Authentic Leadership research and its surrounding body of literature, identified that out of a total of 203 publications in the period up to 2010, 152 emanated from the US, whilst only seven publications originated from the UK, suggesting a significant dearth of UK research into the field.
Of these publications, 68 extended the theory whilst only nine developed new theory, four of these being published prior to 2003. 132 publications were in the field of management, 196 were academic and only six were predominantly psychological/psychometric in nature. Within this body of literature, whilst a total of 25 empirical research publications were identified, nine were qualitative and 16 quantitative, with only four of these involving inventories or scale development:

(1). Henderson and Hoy, (1983), developed the Leader Authenticity Scale, (LAS).

(2). Goldman & Kernis, (2001), developed the Authenticity Inventory (AI).

(3). Walumbwa et al. (2008), developed the Authentic Leadership Questionnaire, (ALQ).

(4). Tate, (2008), developed a 17-item inventory based on George’s (2003) conceptual dimensions.

Lagan, (2007), also developed a conceptual model of Authentic Leadership. However, as this was PhD research rather than peer-reviewed, published research, his inventory was not included within Gardner et al.’s (2011) review. I have included it within this research project as it provides a useful juxtaposition to Walumbwa et al.’s ALQ model as I go on to explore in Chapter 2.

Of these five empirical research studies only Lagan, (2007), and Walumbwa et al. (2008), developed psychometrically robust inventories specifically designed to measure the construct of Authentic Leadership; Henderson and Hoy’s (1983) Leadership Authenticity Scale was primarily a measure of authenticity, applied to
leadership, as was Goldman & Kernis’ (2001) Authenticity Inventory. Tate’s (2008) conceptualisation of George’s (2003) practitioner-led work was not found to be a psychometrically robust measure of the Authentic Leadership construct, (Gardner et al., 2011).

Lagan and Walumbwa et al. are American, therefore the language they used within their research and to develop their Authentic Leadership models and inherent scales is American English in both construct and content. The population samples used by them were multi-cultural American business student populations, not actual practising leaders working in real roles of leadership responsibility. These issues potentially limit the validity, reliability and generalizability of their measures within the UK and may even be potentially problematic with regard to the theoretical construct of Authentic Leadership as it is embodied and practised by genuine UK leaders. This research has been designed to address the epistemological gap in the research surrounding how Authentic Leadership may be conceptualised and practised within the UK.

**My broad research questions are therefore:**

1. What current theory-driven conceptualisations of Authentic Leadership exist and how are these conceptualisations empirically measured?
2. Can a new theory-driven measure of Authentic Leadership as it is embodied and practised within the UK be developed, which, at the same time, simplifies the current complex conceptualisations of Authentic Leadership?
1.4 Generalizability and Limitations of the Research

Culturally, a society has not been identified where some form of leadership is completely absent, (Murdock, 1967), cited by Bass, (1997). Bass’ (1985), conception of the Transactional–Transformational leadership paradigm appears to exist universally across those cultures where a predominantly ‘Western’ philosophical political culture predominates, (Bass, 1997), suggesting that, potentially, other leadership paradigms which also incorporate an ethical-moral dimension may also be universally relevant to such cultures. As Authentic Leadership is posited as comprising a significant ethical component, this research project into the concept and construct of Authentic Leadership is likely be germane to all such societies.

The population samples used within this research project were serving military leaders within the UK’s Royal Air Force (RAF) and UK business leaders. As the population samples used comprised genuine UK leaders, as opposed to students, it is likely that the results of this research can be operationalized across other military and leadership populations, certainly within the UK and possibly geographically further afield within other English-speaking, Westernised cultures. The research is limited to the field and construct of Authentic Leadership and is set firmly within the foundations of an empirically based, positivist paradigm using primary data.

1.5 Epistemological Contribution

A new theory based model of Authentic Leadership.
Chapter 2 - Literature Review

2.1 Introduction

This chapter briefly explores the question, ‘What is Leadership?’, before going on to explore the major significant leadership approaches: Trait, Style and Contingency, as they relate to the concept of Authentic Leadership. The chapter then goes on to detail the concept of Authentic Leadership in depth, from its historical roots within Eastern and Greek philosophies to its modern construct as explored by scholars such as: Burns, (1978); Bass, (1985); Chan, (2005); Avolio et al. (2004); Walumbwa et al. (2008); Gardner et al. (2004); Ilies et al. (2005) and Novicevic et al. (2006), to business practitioners such as Terry, (1993) and George, (2003).

The chapter continues with an exploration of authenticity and what it means for a leader to be authentic, as compared to being an Authentic Leader, before relating these concepts to Authentic Leadership per se. The debate surrounding authenticity, as opposed to authentic leadership, continues, as the philosophical, ontological, epistemological and axiological positions regarding the concept of the ‘self’ and the ‘other’ and therefore of a leader’s self/other awareness are then discussed and related to authentic leadership and inauthentic leadership or, as Bass, (1985), calls it; pseudo-authentic leadership. Authentic followership, i.e. the special relationship that Authentic Leaders are posited to have with their followers and its reciprocal, symbiotic nature, is then explored, as is the theoretical emergence and development of Authentic Leaders and Authentic Leadership. Next, the current empirically-based Authentic Leadership Models of Authentic Leadership are identified and reviewed. These are: Lagan’s (2007) model, based on the work of Kernis, (2003), and Walumbwa et al.’s (2008) Authentic Leadership Questionnaire (the ALQ), which was based mainly
on the work of Illies et al.’s (2005) conceptualization, which itself was also based largely on the work of Kernis, (2003), (see also Kernis & Goldman, 2005 & 2006). This is followed by a review and summary of the characteristics and attributes of Authentic Leaders as described by scholars and practitioners within the literature, which precedes a critique of the Authentic Leadership construct as it is currently conceptualised. The Research Problems surrounding Authentic Leadership, including, specifically, those which led to this research project, are clearly articulated before a new theoretical, 4-Factor Model of Authentic Leadership is proposed. Finally, the original contribution to the epistemology surrounding Authentic Leadership is identified and concluding remarks are made. The broad areas researched within the Literature Review and their overlaps are shown in Figure 1.

**Fig. 1: Literature Review**
2.2 What is Leadership?

As introduced in Chapter 1, this research project was designed to develop a greater understanding of the concept and construct of Authentic Leadership; what it is broadly, its component parts, how it develops over time, (if indeed it can be developed), and how it can be reliably and accurately measured from both leader and follower perspectives. However, before the concept of Authentic Leadership can be explored, it needs to be put into the context of Leadership in general.

This section briefly explores the major significant leadership models that have emerged over the last hundred years or so, since the modern concept of Leadership became recognised as a construct worthy of empirical scientific study and modern academic debate. I therefore briefly explore the Trait, Style and Contingency approaches to leadership, although as Maurik, (2001), points out, it is important to recognise that none of these approaches are mutually exclusive. It is also important to recognise the problematic nature of the construct of leadership per se; the modern body of knowledge and research that surrounds the field of leadership is vast. A complex area, many leadership theories, approaches and models have been developed in an attempt to understand it fully. However, no one generally accepted definition of leadership exists. Stogdill, (1974), suggests that as many definitions of leadership exist as those people who have tried to define it, whilst Yukl, (2002, p. 4-5), states, “Like all constructs in social sciences, the definition of leadership is arbitrary and very subjective. Some definitions are more useful than others, but there is no ‘correct’ definition”, With Hunt, (2004), concluding that regarding the question, ‘What is leadership?’, the answer depends on the ontological and epistemological assumptions one makes about leadership; its purpose, outcomes and philosophical basis.
“The study of leadership rivals in age the emergence of civilization”, (Bass, 1990, cited by Avolio & Chan, 2008, p.198), (see also Rapport & Overing, 2003). The study of Leadership therefore is far from new, reaching back as it does through history beyond the Roman Empire and the ancient Greeks in excess of at least three thousand years when Plato’s philosophical debates regarding the inherent moral and ethical dimensions of the purpose of leadership situated the immediate relevance, impact and importance of the construct and gave it a different dimension to that of purely war and conquest, (Avolio, 2007). In an effort to capture the essence of leadership, the following perspectives are offered:

“Leadership should be defined in terms of the ability to build and maintain a group that performs well relative to its competition”, (Hogan & Kaiser, 2005, p.172).

“Leadership is about results …… but it is not only about performance; it is also about meaning, ….. Leaders at all levels make a difference to performance. They do so by making performance meaningful”, (Goffee & Jones, 2006, p.2).

“Leadership solves the problem of how to organise collective effort; consequently, it is the key to organizational effectiveness”, (Hogan & Kaiser, 2005, p.169).

“Great leaders are bred from great causes, but leaders, at their best, also breed great causes”, (Handy, 1996, p.8).
“Leadership is a process whereby an individual influences a group so as to achieve a common goal”, (Northouse, 2004, p.3).

Leadership is, “A process of influence leading to the achievement of desired purposes. It involves inspiring and supporting others towards the achievement of a vision ...... which is based on their personal and professional values”, (Bush & Glover, 2003, p.8).

“Most definitions of leadership reflect the assumption that it involves a social influence process whereby intentional influence is exerted by one person (or group) over other people (or groups) to structure the activities and relationships in a group or organisation”, (Yukl, 2002, p.3).

Leadership then, involves people; a dynamic interaction between individuals and groups, and broadly concerns the achievement of tasks in the pursuit of some kind of goal or vision. As a social construct, it is relational, concerning the influence that individuals exert over both themselves and each other, (Avolio & Gardner, 2005, pp.332-3, Cunliffe, 2009, Cunliffe & Eriksen, 2011). A number of summaries have been written in an effort to synthesize what is currently understood about leadership. However, according to Avolio, (2007), none have come up with a convincing argument for an overarching or comprehensive construct of leadership (see also Northhouse, 2004; House, 1971; Stogdill, 1974; Van Maurik, 2001, and Grint, 1997), and it is now
time for leadership theory and research to, “Move on to the next level of integration”, (Avolio, 2007, p.25).

It seems therefore, that at best, “Leadership is ambiguous”, (Pfeffer 1977, cited by Hansen et al. 2007, p.545). At its worst, it is a problematic construct. Northouse, (2004), and Avolio and Chan (2008), suggest, rather obviously, that the leadership construct is multi-faceted and multi-dimensional. If we accept this to be true, it is therefore critical that any research undertaken to study elements of the leadership construct also takes a multi-dimensional, multi-perspective and multi-faceted approach, and applies a philosophically dialectical approach to the research rather than a dualistic one. Fay, (1996), p.22, exhorts us to, “Avoid pernicious dualisms”, within the study of people. Dualisms he suggests, engender confrontations and antagonisms between two entities and force us to choose in an ‘either/or’ way between them, whereas a dialectical approach encourages us to recognise that alternatives are deeply inter-connected and offers a ‘both/and’ perspective.

Leadership therefore cannot be studied in isolation, but should always be viewed in the societal and cultural context within which it takes place and with followership in mind. For example, leaders may perceive their acts from an ‘intentional’ perspective, that is to say, the meaning of their act is uni-valent and represents their own positive intention of it. However, within Gadamerian hermeneutics, the meaning of an act is always relative to the interpreter. Therefore the meaning of any behaviour should also be perceived through the followers’ eyes.
and as such becomes therefore multi-valent, as each follower interprets the leadership act for themselves, (Dobrosavljev, 2002).

I now briefly explore the three major significant approaches which have dominated the study of leadership over the last century as they seem particularly relevant to the field of Authentic Leadership: Trait, Style and Contingency.

2.3 The Major Significant Leadership Approaches: Trait, Style & Contingency

2.3.1 Trait Approaches

‘Great Man’ theories focuses on the personality traits and enduring attributes of the leader and assume firstly, that there are distinguishable traits which separate leaders from non-leaders, and secondly, that such traits are innate, (Carlyle, 1907). Northouse, (1997), suggested that there are five major leadership traits; intelligence, self-confidence, determination, integrity and sociability. Subsequent trait approaches to leadership also assumed certain universal characteristics that could identify leaders, however a lack of empirical evidence failed to support the assumed link between universal leadership characteristics and performance. More recent work in the area suggests that only approximately 30% of leadership traits are heritable, the remaining 70% being attributed to other environmental factors, (Arvey, Zang, Avolio & Kruger, 2007, cited by Avolio & Chan, 2008). However, this body of research did not suggest that all leaders possessed the same 30% of inherited traits and to date there is still no empirically identified list of traits that all effective leaders can be said to possess.
2.3.2 Style Approaches

Disenchantment with the study of personality and trait approaches led scholars and practitioners to focus instead on the behaviours of leaders; what they actually did and how they acted, with particular regard to their behaviour regarding followers. The Average Leadership Style approach, (ALS), views the leader as an individual who exhibits very similar behaviours towards all of their followers, whereas Individualized Leadership, (IL), views the leader as relating to each follower individually and independently of how they may interact with any other follower, (Yammarino & Dansreau, 2008). However this is a very modern approach to style; early approaches tended to differentiate between people or task centred leaders, directive leadership or participative leadership, (Blake & Mouton, 1964). McGregor’s (1960), Theory X and Theory Y framework was a product of this time.

Charismatic Leadership seems to bridge the Great Man, Trait and Style approaches. Developing Bass’s initial, (1989), conception, research by Howell & Avolio, (1992), who interviewed 25 Canadian leaders, identified six key behavioural traits which, combined, led to what they termed an Ethical or Unethical Charismatic leadership style. Because of its focus on ethics, Charismatic Leadership can be usefully compared to Transformational Leadership and Authentic Leadership, with Avolio & Gardner, (2005, p. 329), echoing May et al. (2003), suggesting that as a ‘root construct’ of all positive forms of leadership, Authentic leaders and Authentic Leadership can incorporate Charismatic, Transformational, Spiritual, Servant, or any other styles of positive leadership.
Historically however, similar to the disappointing results of the trait approaches, viewed discretely, the style approach also failed to identify a universal style or set of styles that guaranteed either effective leadership performance or that was found to be suitable for all situations and environments, (Northouse, 2004). This led to an interest in the importance and relevance of the specific situations within which leaders found themselves; the suggestion being that leadership style and/or behaviours will be contingent on the environment, situation and circumstances within which the leader is situated.

### 2.3.3 Contingency Approaches

Contingency approaches, such as Hersey and Blanchard’s (1977) Situational Leadership model, identify the importance and impact of situation and environment, matching leader suitability and situational requirements where possible. House’s (1971) Path-Goal theory posits situational moderators in the context of leaders’ task/people orientations as they impact on four leadership decision making styles. Vroom & Yetton’s (1973) Normative Decision model posits seven leadership decision making styles contingent on the interaction between situational demands and follower capability and also incorporates elements of thinking style requirements as they relate to situational demands, (Avolio & Chan, 2008).

Of all the significant leadership theories that exist, Burns’ (1978) and subsequently Bass’ (1985) Transformational Leadership theory and Howell & Avolio’s (1992) Charismatic Leadership model best seem to link the concepts of leadership and authenticity; emphasizing the roles that authenticity and morality play in the way that
leaders transform organizations and lead their followers to levels of higher performance, (Bass & Avolio, 1993; Luthans & Avolio, 2003, and Avolio & Gardner, 2005). Bass, (1985), suggests that authentic transformational leadership is substantively grounded in deeply held moral convictions which can be contrasted with pseudo-transformational leadership where such moral character is lacking, (see also Price, 2003). Bass & Steidlemeir, (1999) and Brown & Mitchell, (2010), both make the point that the literature surrounding Transformational leadership has been consistently linked with the historical literature on virtue and morality, such as those exemplified in the writings which surround Confucian, Aristotelian and Socratic philosophies. The moral character exemplified by Authentic leaders is consistent with both Ethical Charismatic Leadership and the Transformational leadership models. However, as I shall go on to explore, the concept of Authentic Leadership goes beyond that of merely being ethical and transformational in Bass’ terms, (Hannah et al. (2011).

2.4 A new emergent model: ‘Authentic’ Leadership

Authentic Leadership, as introduced in Chapter 1, has developed a considerable body of writing surrounding its conceptualisation and operationalisation: (see Luthans & Avolio, 2003; May et al. 2003; Chan et al. 2005; Cooper et al. 2005; Eigel & Kuhnert, 2005; Gardner et al. 2005a&b; Shamir & Eilam, 2005; Klenke, 2005; Illies, 2005; Goffee & Jones, 2005; Novicevic et al. 2006; Lagan, 2007; Avolio, 2007; Endrissat et al. 2007; Avolio & Chan, 2008; Garger, 2008 and Walumbwa et al. 2008). No one generally agreed definition of Authentic Leadership exists, although Gardner et al. (2011, p. 1122) have included a useful summary of many of the Authentic Leadership definitions and a sample of the descriptions of Authentic leaders’ characteristics. Taking a multi-
level approach, they include descriptions of organisational authenticity as well as Authentic Leadership per se, viewed from the individual level of analysis.

Chan et al. (2005), suggest that at the proximal level, positive leadership outcomes such as trust, humility, optimism, and the quality of relationships are all magnified by the lens of Authentic Leadership. They posit Authentic Leadership as a ‘leadership multiplier’ in that interventions made by the Authentic Leader are received more favourably by their followers and outcomes are more influential as the resultant impact is increased. Both May et al. (2003), and subsequently, Gardner et al. (2005a), posit Authentic Leadership as a ‘root construct’ which underpins all positive approaches to leadership and its development.

Hollander, (1993), suggests that without followers, there can be no leaders and therefore by inference, no leadership. As leadership cannot exist within a vacuum, the concept of ‘followership’ would seem to be pertinent to all leadership theories. Many of the writers on Authentic Leadership, scholars and practitioners alike, suggest that the relationship between Authentic leaders and their followers is a particularly special one, (Henderson & Hoy, 1983; Terry, 1993; George, 2003; May et al. 2003; Avolio et al. 2004 & 2008; Gardner et al. 2005 & 2011; Avolio & Gardner 2005; Shamir & Eilam 2005; Ilies et al. 2005; Avolio, 2007 and Zhu et al. 2011), (see also 2.8).

Leader-member exchange theory suggests that the quality of the exchange relationship between leaders and followers will affect the quality of any outcomes, (Graen & Uhl-Bien, 1995). Bass’ Transformational Leadership theory suggests that
the strong emotions elicited in followers by authentic Transformational Leaders results in strong emotional attachment and identification with those leaders, (Bass & Steidlmeier, 1999). One of the distinguishing features of authentic transformational leadership is that such leaders develop their followers into effective moral agents who reflect the higher moral standards of the leader, (Bass, 1985; Bass & Steidlmeier, 1999 and Price, 2003). As the Authentic Leadership construct theoretically comprises a strong ethical component, it is argued that Authentic Leaders, through positive leader role modelling, taking a multiple perspective approach and having a focus on the general development of their followers, also influence the development of their followers with regard to their cognitions, emotions and behaviours, most particularly their ethical and moral values and subsequent actions, (Gardner et al. 2004, 2005a&b 2011; Avolio et al. 2004; Avolio & Gardner, 2005; Ilies et al. 2005; Avolio & Reichard, 2008; Hannah et al. 2011 and Zhu et al. 2011). “They do not just lead followers to perform well; they also develop followers to lead themselves and others to perform well”, (Zhu et al. 2011, p.805).

Avolio & Gardner, (2005, pp.331-2), suggest that the relationship between leader and follower is a dynamic one, with each influencing the other, “Through increased self-awareness, self-regulation and positive modelling, authentic leaders foster the development of authenticity in followers. In turn, follower’s authenticity contributes to their well-being and the attainment of sustainable and veritable performance”. Not only is the relationship within the Authentic Leader-follower dyad dynamic, it is one that is characterised by trust and integrity, (Avolio et al. 2004; Gardner et al. 2004, 2005a&b, 2009 & 2011; Ilies et al. 2005 and Chan et al. 2005).
The Authentic Leadership construct, much more than other posited leadership approaches such as Transformational, Charismatic, Servant or Spiritual leadership constructs, suggests that Authentic Leaders are deeply aware of their personal values and beliefs, are genuine, reliable and trustworthy, with a focus on building followers’ strengths and creating a positive and relationship focused organizational context which leads to positive organisational outcomes, (Avolio & Gardner, 2005). It is posited that the self-awareness and self-regulatory elements of Authentic Leadership will be mirrored within the development of the follower and that the development of leaders and their followers occurs concurrently as each influences each other and the relationship unfolds over time and that relationship becomes more genuine and authentic, (Gardner et al. 2005 a&b & 2011; Avolio et al. 2004, 2005 & 2008; Hannah et al. 2011 and Zhu et al. 2011).

Increased follower job satisfaction, work engagement and job performance are also posited as outcomes of Authentic Leadership, (Avolio, Gardner et al. 2004; Chan et al. 2005; Ilies et al. 2005 and Walumbwa et al. 2008 & 2010), as is follower well-being, (Kernis, 2003; Ilies et al. 2005; Gardner et al. 2005a&b, 2009 & 2011 and Hannah et al. 2011) and follower empowerment, (Walumbwa et al. 2010). Whilst there is consistency within the literature regarding the symbiotic relationship that exists within the leader-follower dyad and the influence that each exerts on the other, as Gardner et al. have identified, (2011, p.1137), there is very little empirical evidence to support the antecedents, outcomes and mediators of Authentic Leadership.
2.5 Authenticity, Self-Awareness and how they relate to Authentic Leadership

One of the modern business practitioner perspectives on Authentic Leadership is captured by Warren Bennis, (1992, p.122) who states that, “Leadership without perspective and point of view isn’t leadership – and of course it must be your own perspective, your own point of view….It must be authentic, and if it is, it will be original, because you are original”.

However, before a construct can be measured, it must firstly be accurately defined. Potentially, this is a problem for both authenticity and Authentic Leadership. The Oxford English Dictionary defines authenticity as, “being genuine” and “being real”. Kernis however, in his seminal 2003 paper on Optimal Self-Esteem, based largely on Carl Roger’s psychotherapeutic work, (see Rogers, 1961), with individuals regarding self-actualization, describes authenticity as, “The unobstructed operation of one’s true, or core, self in one’s daily enterprise”, (Kernis, 2003, p.1). He went on to define behaving authentically as, “Acting in accord with one’s values, preferences, and needs as opposed to acting merely to please others or to attain rewards or avoid punishments”, (Kernis, 2003, p.14).

Kofman & Senge, (1995), describe authenticity as a willingness to recognise, include and embrace all of our aspects, even dark or demonic ones. This notion of ‘the dark side’ of leadership was further developed by Hogan & Hogan, (2001), who developed a personality inventory which they suggest can predict managerial failure, “The personality of a leader affects the performance of a team: who we are determines how we lead”, (Hogan & Kaiser, 2005, p.170), (see also Brumbaugh, 1971).
Shamir & Eilam’s (2005) definition of authenticity follows the classic dictionary categorisation meaning ‘genuine, not fake’ and they offer the following characteristics of Authentic leaders referring specifically to authenticity: firstly, they do not fake their leadership; when enacting a leadership role, they are ‘being themselves’. Secondly, they lead from an authentic and genuine personal conviction, personal cause, purpose or mission.

The psychologist William James indirectly links authenticity to Csikszentmihályi’s concept of ‘flow’ or ‘optimal experience’, which Seligman, (2002), also connects with the concept of ‘authentic happiness’ encompassed by the Positive Psychology Movement. James suggests that he is most himself, and most ‘real’ when he feels himself to be most deeply active and alive. “I have often thought that the best way to define a man’s character would be to seek out the particular mental or moral attitude in which, when it came upon him, he felt himself most deeply and intensively active and alive. At such moments, there is a voice inside which speaks and says, “This is the real me””, (James, 1920), as cited by Bennis, (1998, p.49)

Philosophically, the Existentialist position focuses on the uniqueness of each human individual. The French existentialist Jean-Paul Sartre, (1956), introduced the modern authenticity-inauthenticity debate. Sartre was concerned with authenticity and the notion of freedom with its attendant sense of personal responsibility, “In the end one is always responsible for what is made of one”, cited by Audi, (1999, p. 812). This was taken up by the sociologist Seeman, (1966), who viewed inauthenticity as,
“excessive plasticity,” by leaders who abandoned their personal positions in order to comply with the requirements of their public roles.

The German existentialist Martin Heidegger was interested in the ontological, “question of being”, first posed by Greek philosophers such as Plato and Aristotle. Heidegger was concerned with the meaning of being, rather than the search for meaning in our everyday lives, holding that there is no pre-given human ‘essence’, (Heidegger, 1966). Rather, as self-interpreting beings, we are what we make of ourselves by ascribing meaning to our actions. We constitute our own individual sense of identity by what we do, and to be authentic is to accept personal responsibility for the sum total of what one’s life adds up to as a whole, (Audi, 1999, pp.371-2).

Within a psychological context, Novicevic et al. (2006), identify authenticity as psychological ‘traits or states’. As a trait, which is concerned with the identification of individual differences between people, Authentic Leadership becomes a continuum along which someone can be described as being completely authentic or completely inauthentic.

This idea echoes Erickson’s (1995) writings on authenticity, cited by Avolio & Gardner, (2005, p.320), “Authenticity is not an either/or condition, i.e. people are neither completely authentic nor inauthentic. Instead, they can more accurately be described as achieving levels of authenticity”. This concept, that of a continuum, applied to Authentic Leadership, is illustrated by Fig. 2.
Authenticity as a state occurs when individuals self-regulate their cognitions, behaviours and emotions in ways that meet their psychological needs. Such self-regulation suggests the antecedent of self-awareness or metacognitive awareness by individuals, (see Flavell, 1976, 1979, 1981 & Goldman, 1995). Metcalf & Shimamura, (1994, preface, xi) describe metacognition as, “Our knowledge about how we perceive, remember, think and act – that is, what we know about what we know”, i.e. our conscious self-awareness. One of the earliest references to metacognition can be traced back to Gautama Buddah, (560-477), who suggested that we are what we think, and that it is our thoughts which create the world around us, (Walsh, 1999).

A metacognitive approach therefore is concerned with increasing an individual’s self-awareness of their own cognitions and cognitive states. This however is only one perspective. Metacognition is also concerned with understanding other
people’s thinking processes and perceptions to the point of being able to make predictions about them, (Messick, 1976). Therefore a metacognitive approach is also a multi-perspective one.

Brown, (1978), and Flavell, (1976, 1979, 1981), emphasized the regulatory and control aspects of metacognition and posited that planning, revising and monitoring one’s thinking are important executive processes. Livingston, (1997), suggests that there is considerable debate surrounding the exact definition of metacognition and the phenomena it describes as some terms are used synonymously within the literature, such as ‘metacognition’ and ‘metacognitive awareness’, ‘executive control’ and ‘self-regulation’. This suggests a link to the subsequent behavioural, cognitive, emotional and self-control aspects of self-awareness. Authentic Leaders who are metacognitively aware of their own thinking and cognitive processes are better able to self-regulate their internal self-talk and resultant leadership behaviours. They experience heightened self-awareness and are better able to take a multi-perspective approach to the solving of complex moral dilemmas. They have greater levels of self-concept clarity and are more cognisant of the salience of their core beliefs and values, (May et al. 2003; Avolio & Gardner, 2005; Chan et al. 2005; Luthans & Avolio, 2003 and Eigel & Kuhnert, 2005).

Harter, (2002), p.382, in her chapter on Authenticity in the Handbook of Positive Psychology, suggests that, regarding authenticity, there is, “No bedrock of knowledge. Rather, there are unconnected ... islands of insight”. Harter traces the origins of authenticity back to the ancient Greek philosophical injunctions of, “Know
“thine own self be true”, which encourage the owning of one’s personal experience (in which she includes both emotions and cognitions) and one’s daily acting in accordance with them, (Harter, 2002, p.382). She notes that historically, more attention has been paid to the notion of a lack of authenticity and to the different ‘faces’ that we might present to the world (Harter, 2002; Goffman, 1959). Harter also suggests that one can remain authentic whilst adjusting one’s behaviour and acting differently within different relational contexts. This idea, of adjusting one’s behaviour and acting differently within different relational contexts, may suggest that, within a leadership context, Harter is introducing or endorsing an element of inauthenticity, particularly if it is perceived by followers to be manipulative or narcissistic. However Harter seems to view such adjustments as developmental and sets them firmly within the context of the way in which the self is continually reconstructed, “Experimentation or imitation ... widens our experience or sense of possibility; it reflects a wish to find ourselves in order to be ourselves”, (Harter, 2002, p.392).

‘Being oneself’ and being ‘true to oneself’ assumes the antecedent of accurate self-awareness as compared to a deluded or distorted sense of self, (Adorno, 1973). One definition of self-awareness is an individual’s capacity to self-observe, (Wickland, 1979), whilst Atwater & Yammarino, (1992), define it as being able to make accurate comparisons of one’s own behaviour against an external standard, and further, to have the cognitive capacity to assess other people’s evaluations of oneself. However, followers cannot be 100% cognisant of their leader’s thinking and emotions, as these are often internal and not externally expressed, (Ashford, 1989). Each individual
experiences their own unique cognitions and emotions to which only that individual has privileged access. Ultimately, “A wall of privacy divides each of us from one another”, (Fay, 1996, p.30), (see also Wegner & Vallacher, 1980).

The developmental psychologist Vygotsky viewed self-awareness as socially constructed, i.e. we become self-aware within the context of others. This Social Constructionist approach does not assume that humans develop self-awareness automatically, but rather, posits that through the process of ‘cultural mediation’ we construct meaning and develop awareness of our own beliefs and values. Harter, (2002), p.389, is quite explicit on this idea; ”The deepest sense of a true-self is continually formed in connection with others and is inextricably tied to growth within the relationship”. The concept and process of how the authentic self is continually reconstructed is encapsulated by Fig. 3.

**Fig. 3: The Construction of “the Self” and its relationship to Authenticity**

![Diagram of the Construction of “the Self” and its relationship to Authenticity](image)
However, the continual re-construction of the self assumes a number of ontological positions regarding the self. The Atomist account of ‘the self’ as being distinct, contained and separate from ‘the other’ can be contrasted with the Social Constructionist account where neither the Self nor the Other are enclosed, discrete and separate, but rather, each mutually defines the other, as their interaction is integral to their way of being in the world, (Fay, 1996). These two ontological positions are shown in Fig. 4.

**Fig. 4: The Position of ‘the Self’ in relation to ‘the Other’**

Adapted from Fay, (1996)

This research assumed a Social Constructionist account of the self, where, rather than being separate, distinct and clearly defined, the self is readily influenced by the relational interactions with others and is ‘permeable’ in that respect, (Mahoney, 2002). This perspective has led some writers to suggest that leadership is therefore not only *relational*, but *inter-relational*, (Cunliffe, 2009 & Cunliffe & Eriksen, 2011).
Within this research study, ‘the self’ is assumed to be the leadership position and ‘the other’ a follower position, which, hierarchically, may be a superior, subordinate or peer position. Moreover, this research also assumed that there is a ‘true-self’ to use Harter’s terminology; a sum of core beliefs and values which serve to define an individual and which can only be fully known by that individual. This true, or core self, defines ‘who we really are’. However, as Fay, (1996), points out, regarding our own inner consciousness and sense of self, and despite the self being ‘permeable’ and individuals sometimes being prepared to share their innermost thoughts and feelings; ultimately, our personal cognitions and emotions are private. This ontological position is shown in Fig. 5 and suggests that it is reasonable to expect that each of the ‘other’ positions may have a different perspective from both each other and from the self.

**Fig. 5: The ‘Permeable Self’**

![Diagram of the Permeable Self](image)
Because perception is, by its very nature, personal and subjective, it follows that where a leader has a number of raters, that those raters may independently have differing views as to that leader’s degree of authentic behaviour and therefore there may be discrepancy between raters. This is sometimes referred to as ‘rater error’ although it has been argued that this is less a statistical error than a difference of individual perception, where that perception is also, by its uniquely personal perspective; subjective, (Taylor, 2007). The difficulties and implications of this research project, which by its very nature takes a positivistic and therefore theoretically objective epistemological stance against the topic of perceptions of authentic leadership, which are by their very nature, subjective, are explored further in the Methodology chapter, 3.3.

In a theoretical sense therefore, it seems that in answer to my ontological question of chapter 1: “Is Authentic Leadership ‘in the eye of the beholder’ (i.e. the follower) or of the leader themselves?”, theoretically at least, the ontological positioning of the self and the other suggest that Authentic Leadership will be held in both the eye of the beholder from each follower’s perspective and in the eye of the beholder from the leader’s perspective, and moreover, that these perspectives may be different. The study and empirical measurement of these differing perspectives within organizations by psychometric methods is collectively known as Multi-Source Feedback or MSF.

The concept of multi-source feedback, also called multi-rater feedback, is a relatively new one within the study of organisations, having been included in the form
of 360° appraisal systems for approximately twenty years, dating from the late 1980’s. The purpose of such feedback systems is to improve managerial or leadership performance via the process of increasing self-awareness, (Church & Bracken, 1997). So popular have MSF systems become that the inclusion of multiple perspectives is deemed to be one of the “vital signs” of leadership and organizational performance, (Hronec, 1993, cited by Church & Bracken, 1997).

Within the MSF literature, both 180° and 360° systems exist, although this literature review revealed that 360° feedback systems are the most commonly researched and reported. The notion of 360° feedback signifies that an estimation of performance is obtained from an individual, whilst also being rated from the multiple perspectives of their immediate managers, i.e. ‘downwards’ feedback, and a number of subordinates, i.e. ‘upwards’ feedback. Colleagues are also sometimes included in 360° MSF systems, as are key suppliers and clients, i.e. ‘peer’ feedback, (London & Smither, 1995).

Organizationally, the purpose of any multi-source feedback initiative is to increase an individual’s self-awareness in order that operational improvements may be made in performance, (Atwater & Waldman, 1998). Subordinates who have the most frequent contact with their leaders and the greatest opportunity to observe them have been found to provide more accurate ratings than those subordinates who have less frequent contact, (Rothstein, 1990; Hannum, 2007).
Furthermore, leaders’ personal perceptions of their own levels of authentic leadership compared to their followers’ perceptions of them may or may not be accurate; it is recognised that leaders tend to over-estimate their performance, (Atkins & Wood, 2002). In order to mitigate leader bias, this research took a 360° MSF approach whereby an individual leader and a number of other people, who had worked with that leader for a minimum period of six months, rated that leader’s performance against a number of cognitive and behavioural traits theoretically identified within the literature as relating to Authentic Leadership.

Wohlers & London, (1989), posit that self-other rater agreement is used as a measure of self-awareness. Atwater & Yammarino, (1992, p.143), argue for a meta-cognitive element to self-other rater agreement, stating that, “Self-awareness stems from the individual’s ability to assess others’ evaluations of the self and to incorporate those assessments into one’s self-evaluation”, (see also Van Velsor et al. 1993). Self-awareness has been associated with managerial success and effectiveness, (Tornow, 1993), and has also been shown to be a distinguishing factor in the prediction of leadership behaviour and performance, (Atwater & Yammarino, 1992).

Leaders who are highly self-aware are associated with more positive individual and organizational outcomes, (see Moshavl et al. 2003; Mabe & West, 1982; Atwater et al. 1998; Bass & Yammarino, 1991; Godsalk & Sosik, 2000; Tornow, 1993, and Sosik, 2001). Authentic Leaders are also associated with more positive individual and organizational outcomes (Avolio & Gardner, 2005, and Gardner et al. 2011), suggesting
that self-awareness may well have a key role to play within the construct of Authentic Leadership.

2.6 Historical and Modern Perspectives on Authentic Leadership

Within both the Confucian system of thought, and also from the perspective of Aristotelian ‘virtue ethics’, leadership is an emergent quality of character which originates from within a person, where leadership is based on the trust and respect that make others want to follow. The leader therefore must be a role model to others by their exemplary conduct. Implicit within Confucian philosophy is the idea that it is possible for anyone to become a leader, provided that they make a continual effort on the path of self-cultivation and learning and are willing to work ceaselessly on the path to ‘Perfection’.

To achieve the final objective of perfection requires careful thinking, speaking, and acting. Implied within Confucian philosophy therefore, and also within Aristotelian philosophy, is an internal journey of self-awareness and self-regulation regarding one’s own beliefs and values and resultant moral and ethical decisions, (Fernandez, 2004; Kodish, 2006 & Hannah et al. 2011).

With their focus on personal character, virtue, self-awareness, self-discipline and ethics, perhaps Confucian and Aristotelian leadership philosophies may be considered as early forms of Authentic Leadership. Identifying the critical dimensions inherent within the core construct of modern Authentic Leadership will enable researchers and theorists to explore the associations between the three philosophies.
I would suggest therefore, that the desire for authenticity, Authentic Leaders and Authentic Leadership, transcends both temporal and cultural boundaries. This adds further support to the relevance and importance of this research project.

As previously mentioned, the Transformational Leadership model differentiates between pseudo-transformational leaders and authentic-transformational leaders, (Burns, 1978, and Bass, 1985). Whilst authentic-transformational leaders are considered genuinely transformational in their, “relationship of mutual stimulation and elevation that converts followers into leaders”, (Burns, 1978, p.4), Bass & Steidlmeier, (1999), argue that to be considered truly transformational, leadership must be grounded in moral foundations. However, one of the reasons why the Authentic Leadership model goes beyond being simply transformational is that it seems to be predicated on the self-awareness of a leader as much as it is on the leader’s ethical and moral values.

Novicevic et al. (2006, p.64), offer a modern definition of Authentic Leadership,

“Leader authenticity today is described more broadly as leader resolve to take responsibility for personal freedom and organizational and communal obligations so that leaders could make choices that would help them construct themselves as moral individuals .... This authentic capacity of a leader to balance responsibilities for private freedom and public obligation was first devised as a litmus test of executive quality by Chester Barnard, (1938)”.

Novicevic et al. (2006), differentiate authenticity between its philosophical and psychological meanings. Within a philosophical context they identify Authentic Leadership as ‘moral virtue’ which sits within the Stoic school of a steadfast moral
response to declining civic and religious values. Secondly, they identify authentic leadership psychologically as the making of ‘ethical choices’ which balance private interest and public responsibility. Novecivic et al. (2006) then, in their conceptualisation of Authentic Leadership, echo both Aristotelian virtue ethics and also deontological, Kantian, society, rule-based ethical leadership perspectives.

Critically, it is this theoretical conceptualization of the construct of Authentic Leadership as sitting within the overlap between the philosophical and psychological meanings which underpins my research and the theoretical model of Authentic Leadership which I propose.

2.7 Authentic Leadership and Pseudo-Authentic Leadership

As previously described, Burns, (1978), and later Bass, (1985; 1989, & 1997) developed, and then further developed, the Transactional/Transformational Leadership model. Both wrote about the critical necessity for Transformational leaders to be authentic if they are to engage their followers and inspire them to achieve. Bass & Steidlmeier, (1999), view Transactional and Transformational leaders as being both simultaneously authentic and inauthentic. The difference they suggest, is that authentic leaders are more authentic more of the time, whilst pseudo-authentic leaders are significantly less authentic much more of the time, pretending to be genuine for their own narcissistic and self-serving ends. “Pseudo-transformational leaders are deceptive and manipulative .... their behaviour is inconsistent and unreliable .... (they) seek power and position even at the expense of their followers’ achievements .... they cannot be trusted”, (Bass & Steidlmeier, 1999, pp.186-187).
Bass & Steidlmeier, (1999), also argue that compared to a Transactional leadership style, where leaders and followers each rationally pursue their own self-interests, for a leader to be regarded as truly Transformational, their leadership style must be fundamentally grounded in moral and ethical foundations. The authentic-Transformational leader, they claim, has a sense of self established in broad concepts of community and moral obligation which therefore engender greater trust within their followers and leads to greater positive organisational outcomes such as hope, productivity and financial performance; all indicators of a transformed organisation where both the leader and the led are transmuted by the epistemological, ontological and axiological implications of their dynamic interplay.

In contrast, a pseudo-transformational leadership style is one where a leader only pretends to act morally in order to achieve transformational organisational outcomes. "It is the presence or absence of such a moral foundation of the leader as a moral agent that grounds the distinction between authentic versus pseudo-transformational leadership" (Bass & Steidlmeier, 1999, p.186). According to Avolio et al. (2005), genuinely Authentic Leaders are very clear about their sense of identity, their values and what they believe in, which engenders in their followers and colleagues a respect for their integrity which is widely recognized.

Authenticity and ethical integrity therefore link the Transactional and Authentic Leadership models. The question, "Can pseudo-authentic leadership ever be justified?" is particularly relevant to Authentic leadership as it is not a question which
seems to have been addressed within the Authentic Leadership literature, and is one of the critiques of the model (see 2.12).

It seems as if pseudo-authentic leadership behaviours can be viewed through the lens of multiple perspectives: from Harter’s (2002) position, all of a leader’s behaviours may be considered to be authentic; there is no such thing as inauthenticity. From Harter’s perspective, adjusting one’s behaviour and acting differently is a process of personal exploration and self-development. The Authentic Leader tries out different behaviours, cognitions and approaches to learn something about the world; the ontological nature of reality, relationships, and epistemological truths from a variety of different perspectives. All with, we can theoretically assume, the positive intention of in some way becoming a better, or at least, a better informed, leader.

In contrast, Bass & Steidlmeier, (1999), view pseudo-Authentic Leadership from a radically different perspective; through the lens of a deceptive and potentially harmful narcissistic manipulation of others for a leader’s own selfish goals, which invariably, they suggest, involves political positioning, and the overuse of control to gain ultimate power.

The difference between the two perspectives is significant; whilst Harter’s (2002) ideology is essentially inward looking, ego-centric and cannot be described as leadership with any pro-social objective, it certainly is not anti-social in the ways that Bass & Steidlmeier, (1999), describe pseudo-Authentic Leadership. The difference
between the two perspectives appears to be a moral one; driven by the intention of the leader to either deceive and/or manipulate, or to explore and/or comprehend.

However, a detailed review of the relevant literature seems to identify that neither of the perspectives appears to incorporate a recognition that within a leadership role, there may be occasions when it is inappropriate, for a political or business leader for example, to be completely transparent about their motives and what they know. If this deception is for the protection or ultimate benefit of others rather than for the self-serving benefit of the leader themselves; if it is therefore prosocial, then does that make the deception morally and ethically justified from an epistemological or moral perspective?

This orientation of pseudo-Authentic Leadership is consistent with both Avolio et al.’s (2005), and Shamir & Eilam’s (2005), conception of it, within which the genuinely Authentic Leader, and even the genuine, albeit inauthentic or pseudo-authentic leader, is essentially morally benevolent, and is only withholding or manipulating information ultimately for the follower’s good and therefore for prosocial and morally right and justifiable reasons.

The premise of Authentic Leadership in terms of being genuinely oneself as a leader seems to assume that each leader will become authentic in his or her own ways. This notion also assumes that every leader will also therefore be inauthentic in their own ways and for their own reasons. Whilst some perspectives view pseudo-authentic leadership as acceptable, even morally justifiable, perhaps the critical factor
is not the eventual outcome of any inauthenticity, but rather the intention behind the act of such a deception?

This question, as it relates to the issue of inauthentic or pseudo-authentic leadership in general, is outside the specific scope of the research project. However, it would be a serious omission not to identify and at least begin to explore the issue within this research project. It is a critique of the Authentic Leadership model that the issue is not identified and addressed within the literature which surrounds it, (see also 2.12).

However, the explanation may be that Authentic Leadership is still a relatively new area of research. It is hoped, that by identifying the issue here within the literature review which surrounds the research project, that it will become a part of future study into the praxis of Authentic Leadership as it is practiced within the real world of leadership, and moreover, will also be addressed within the literature surrounding Authentic Leadership development, (see also 2.9).

The concept of pseudo-Authentic Leadership vs. genuinely Authentic Leadership, combined with Trait Theory, where a leader is deemed it be more or less authentic on a continuum, linked with Novicevic et al.’s (2006) conceptualization of Authentic Leadership which differentiates between the psychological and psychological aspects of leadership, is shown in Fig. 6.
2.8 Authentic Followership


Avolio & Gardner, (2005), reflected this in their conceptualisation of Authentic Leadership Development (ALD) by using the term ‘relational transparency’ as they posit that Authentic Leaders and their followers share information with each other in a more open and transparent manner than other leaders and their followers do. Shamir & Eilam, (2005), pp.400-401, introduced the construct of ‘authentic followership’ to describe followers who, “follow leaders for authentic reasons and have an authentic relationship with the leader”. By this they mean that the follower is under no illusions
about the leader, but rather has a realistic view of them, that they follow because they share the leader’s beliefs and values rather than being coerced or because of any expectations of personal reward, and because of these things, the followers therefore, ‘authenticate’ the leader, and it is this authentification by the followers that therefore makes the leader authentic, (Shamir & Eilam, 2005, p. 401).

Gardner et al. (2005 a&b), also use the concept authentic followership, arguing that follower development mirrors that of their Authentic Leader’s development, and that authentic followers therefore also display internalized regulatory processes, balanced processing of information, relational transparency and authentic behaviours in parallel to those leaders whom they follow. Luthans & Avolio, (2003, p. 243), go further, suggesting that the positive psychological states of Authentic Leaders, such as hope and optimism, are contagious.

Social Contagion Theory, developed from a social constructionist perspective, would suggest that this may be true, (Meindl, 1995; Burt, 1987, and Scherer & Cho, 2003). Perhaps therefore Social Contagion Theory can, in part, explain the ‘leadership multiplier’ effect suggested by Chan et al. (2005)?

2.9 Authentic Leadership Development

Development suggests a process of change. Therefore logically, where nothing has changed, there has not been, and cannot have been, any development. I posit here the importance that the role of self-understanding employs within the development of Authentic leaders and of Authentic Leadership.
Self-understanding is not the same as self-awareness, although like self-awareness it is an on-going process, a continual ‘re-construction’ of one’s reality, to use Harter’s (2002) conception (see Fig. 2). For example, a leader may be (self) aware enough to know that they are not trusted by their followers, but may lack the (self) understanding to know what it is about their own behaviour that makes their followers feel that they are untrustworthy.

I would suggest therefore that the Authentic Leader possesses not just self-awareness, but also the self-understanding that enables them to comprehend their resultant cognitions and behaviours or any subsequent changes in those cognitions and behaviours, and then, subsequently, self-regulate them. The role that self-understanding plays in the change process is shown in Fig. 7.

Fig. 7: The Role of Understanding in the Change Process

![The Role of Understanding in the Change Process](image)
Within the domain of leadership development, we are theory-rich and practice poor. Scriesheim, (2003), even goes so far as to suggest that leadership research is generally irrelevant for leadership development! Leadership development can occur ‘naturally’ over time in the workplace, or it can be ‘accelerated’ by way of an organised and facilitated developmental intervention such as coaching or mentoring, workshops or a course or programme designed around, and most often focused on, either the leadership role or an individual’s specific leadership needs.

The term, ‘Leadership Development Programme’ implies a process of carefully considered temporal inputs. It suggests stable changes in knowledge or skills on the part of the leader that will remain consistent and congruent over time. It further implies that the resultant increases in skills or knowledge happen at a faster rate than would have occurred naturally without such an intervention. Finally, it assumes that such developmental interventions lead to more effective performance outcomes on the part of the leader.

Luthans & Avolio, (2003 p.243), propose a model of Authentic Leadership development within organizations as,

“A process .... which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering positive self-development .... optimal self-esteem and psychological well-being .... (and) to model and promote the development of these states in others”.

Luthans & Avolio’s (2003) model is further developed by Gardner et al. (2005a), who cite the work of Kernis, (2003), as also being critical to the development of their thinking around their Authentic Leadership Development model.

Gardner et al. (2005a), propose an experiential approach to Authentic Leadership development whereby leaders become perceived as being authentic over time via their consistency regarding their core beliefs and values which are actively modelled to their followers. They include the following as the critical elements within their model: leader self-awareness; self-regulation; self-acceptance; balanced processing; authentic actions and authentic relations. They also include the dimension of follower development, viewing authentic followership as not only an integral component, but as a natural consequence of authentic leadership development.

Shamir & Eilam, (2005, p.412), offer a ‘life stories’ approach to Authentic Leadership development. “Authentic leaders find their ‘voice’ by acting in the world, receiving feedback and reflecting on the consequences of their actions. ….. development therefore includes reflecting on the past, acting in the present, and reflecting on present action”.

A life stories approach therefore is an actively reflective process. Shamir & Eilam, (2005), suggest that a life stories approach has four components: firstly, the development of a leader identity as a central and critical part of an individual’s self-concept; secondly, the development of self-knowledge which includes clarity regarding
one’s beliefs and values; thirdly, the development of personal goals which are consistent with one’s passions and self-concept, and fourthly, a lack of leadership dissonance, i.e. consistency between one’s leadership behaviours and one’s leadership beliefs.

Like Sparrowe, (2005), they argue that it’s the leader’s life story narrative, which, when known, provides the major source of personal information around which followers base their judgements around the leader’s authenticity, (Shamir & Eilam, 2005, p.395). This life stories approach is illustrated in Fig. 8.

Fig. 8: A Life Stories Approach: The 4 Components of Authentic Leadership

![A Life Stories Approach: The 4 Components of Authentic Leadership](image)

Shamir, Dayan-Horesh, & Adler, (2005), identified that leadership development as described by leaders’ life story narratives centres around four themes, all of which,
they suggest, are equally valid as a basis for Authentic Leadership development. They are detailed as follows and are illustrated in Fig. 9.

1. A ‘natural’ leadership development process.
2. Development from struggle or hardship.
3. Leadership development from a purpose or cause.
4. Development as an active learning process.

**Fig. 9: Life Story Narratives: The 4 Themes of Authentic Leadership Development.**

Bill George, (2007), also takes a life stories approach to the development of Authentic Leadership. George asks,

“Do you know what your life and your leadership are all about, and when you are being true to yourself? True North is the internal compass that guides you successfully through life. It represents who you are as a human being at your deepest level ... your truth is derived from your life story, and only you can determine what it should be .... When you are aligned with who you are, you find coherence between your life story and your leadership”. George, (2007, p. xxiii).
I would suggest that the following elements can be synthesized and combined to generate a high level approach to a theoretical experiential model of Authentic Leadership development: the self-awareness and self-regulatory aspects posited by Avolio et al. (2004); the self-awareness and moral virtue posited by Novicevic et al. (2006), and the lack of dissonance proposed by Shamir & Eilam, (2005). This is illustrated in Fig. 10.

**Fig. 10: Authentic Leadership Development: An Experiential Approach**

Avolio and Gardner, (2005), suggest nine components to their Authentic Leadership Development (ALD) Model: positive psychological capital; positive moral perspective; leader self-awareness; leader self-regulation; leadership processes/behaviours; follower self-awareness/self-regulation; follower development; organizational context and veritable and sustained performance beyond expectations.
An adapted schematic of their ALD model is shown in Fig. 11. Authentic followership is posited as a natural consequence of ALD, (see Gardner et al. 2005 a&b; Avolio & Wernsing, 2008; Avolio, 2010 & Avolio et al. 2010).

Fig. 11: The Authentic Leadership Development (ALD) Process

May et al. (2003) also focus on the developmental aspects of Authentic Leadership. Like Avolio et al. (2004), they consider Authentic Leadership to be the root concept which underpins all positive approaches to leadership, and they take an approach to its development which focuses heavily on the construct’s inherent moral perspective.

They suggest that whilst the component parts of Authentic Leadership per se may be different, the 3 component parts of its development are: Moral Capacity, Courage and Resiliency. Moral capacity is described as comprising a number of
different elements: how the leader constructs their leadership role; their ability to take a multiple perspective approach and their experience regarding previous moral dilemmas.

A leader’s courage is defined as, “fortitude to convert moral intentions into actions despite pressures from either inside or outside of the organization to do otherwise”, (May et al. 2003, p.255). They associate courage with, ‘doing the right thing’, although quite what is the right thing to do, is not specified and forms one of my major critiques of the Authentic Leadership construct per se. This is further expanded on in section 2.12. Finally, they define a morally resilient leader as one who, “is able to positively adapt in the face of significant adversity or risk”, (May et al. 2003, p.256). These three component parts of Authentic Leadership Development are shown in Fig. 12

**Fig. 12: The 3 Components of Authentic Leadership Development**

![Diagram](image-url)
Whilst Authentic Leadership is posited to occur at multiple levels within an organisation, (Yammarino et al. 2001, 2008 & Yammarino & Dansareau, 2008), the majority of the literature surrounding Authentic Leadership development at this present moment in time, concerns an individual level of leader development rather than an organisational one.

Follower development, i.e. the multiple level perspective of the leader-follower dyad, is included within the literature from the perspective that it mimics the leader’s development, however it does not seem to be tackled per se. from the follower’s rather than the leader’s perspective, (see Luthans & Avolio, 2003; Yammarino et al. 2001, 2008; Chan et al. 2005; Chan, 2005; Gardner et al. 2005 a&b; Avolio & Gardner, 2005; and Avolio & Walumbwa, 2006). (See also 2.8)

2.10 Empirically Based Authentic Leadership Models

An extensive literature review revealed two empirical, deductive research studies which identified Authentic Leadership models within the MSF psychometric paradigm. Lagan’s (2007) model is based on the work of Kernis, (2003), who explored authenticity and its role in optimal self-esteem rather than anything to do with leadership per se, (Lagan, 2007). Walumbwa et al.’s (2008) Authentic Leadership Questionnaire and associated model, (the ALQ), was based mainly on the work of Illies et al.’s (2005) conceptualization, which was also based largely on the work of Kernis’, (2003) optimal self-esteem framework, (see also Kernis & Goldman, 2005 & 2006).
In effect then, it seems that both of these models are fundamentally grounded in the construct of \textit{authenticity} rather than in the construct of \textit{leadership} or \textit{Authentic Leadership}. Potentially therefore, this research project, which uses as its starting point Novicevic et al.’s (2006) conceptualisation of Authentic \textit{Leadership}, may identify something structurally different to Lagan’s (2007) and Walumbwa et al.’s (2008) conceptualisations. A comparison of these models against Kernis’ original (2003) conceptualisation, is shown in Fig. 13.

\textbf{Fig. 13: Authenticity & Authentic Leadership: Comparison of Models}

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<td>2. Relational Authenticity</td>
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There are a number of the critiques which can be levied at Walumbwa et al.’s (2008) model of Authentic Leadership, (the ALQ): firstly the population samples used for the empirical development of the model were potentially problematic in that a significant percentage of students were used, with limited business and leadership experience.
Secondly, a multi-cultural sample was used comprising students from both Eastern and Western cultures who may have differing philosophical conceptualisations of leadership, (Walumbwa et al. 2008). Thirdly, whilst the ALQ involved a comprehensive review of the Authentic Leadership literature which informed the item generation, the content validation process, “relied heavily on the subjective judgements of a small number of doctoral students and other subject matter experts”, (Neider & Scriesheim, 2011, p.1147), which may have introduced bias or error into the model. Lagan’s (2007) conceptualisation of Authentic Leadership also suffers from the first of these critiques, (Lagan, 2007).

As shown in Fig. 13. Walumbwa et al.’s model comprises four factors: Self-Awareness; Relational Transparency; Internalised Moral Perspective and Balanced Processing. They define Self-Awareness as,

“Understanding how one derives and makes meaning of the world and how that meaning making process impacts the way one views himself or herself over time. …. Understanding one’s strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being cognizant of one’s impact on other people”, (2008, p.95).

Relational Transparency is defined as, “Presenting one’s authentic self to others, …. openly sharing information and expressions of one’s true thoughts and feelings while trying to minimise displays of inappropriate emotions”, (2008, p.95), suggesting, although they don’t say so specifically, that self-regulation also plays a critical part within the factor of Relational Transparency.
The third factor, Balanced Processing, is described as referring to leaders who, “show that they objectively analyse all relevant data before coming to a decision ... (and also) solicit views that challenge their deeply held positions”, (2008, p.95). Internalised Moral Perspective is described as, “an internalised and integrated form of self-regulation, ... guided by internal moral standards and values”, (Walumbwa et al. 2008, pp.95-6). This more direct reference to self-regulation suggests firstly, that despite not being explicit within Walumbwa et al.’s model, self-regulation may play a critical part in the operationalisation of the construct of Authentic Leadership, and secondly, it suggests that there may be some overlap between the factors of Relational Transparency and Internalised Moral Perspective.

Lagan’s (2007) model of Authentic Leadership also comprises four factors, which are taken directly from Kernis’ (2003) conceptualisation of authenticity. These are: Self-Awareness; Balanced Processing of Self-Relevant Information; Authentic Action and Authentic Relations (also called Relational Transparency). Self-Awareness includes an awareness and acceptance of our personal motives, emotions, thoughts and feelings. Unbiased Processing of Self-Relevant Information is described as being an ‘untainted’ evaluation of the relevant information which is derived from such self-awareness. Factor three, Authentic Action, is described as behaving in ways which are consistent with our personal values, and Authentic Relations are described as a striving to achieve openness and honesty within our relationships with other people based on a recognition that the act is valuable and that the relationships are of value.
These definitions identify clearly that Lagan’s (2007) model appears, at face value, potentially, to lack both the followership elements necessary for leadership, and also possibly, the ethical/moral components which all other writers on Authentic Leadership include as a critical component to the conceptualisation and operationalization of Authentic Leadership.


2.11 The Characteristics and Attributes of Authentic Leaders

An extensive literature review revealed that the theoretical list of Authentic Leader attributes is long and varied. It seems that every writer on the subject of Authentic Leadership has their own opinion as to the characteristics that Authentic leaders exhibit. However, as with Trait theory, (see 2.3), whilst there are some overlaps and consistencies, there is no universally agreed list of characteristics or attributes which ALL Authentic Leaders can be said to possess. This is another criticism of the Authentic Leadership concept. By using real leaders to attempt to identify the factor structure which underpins the Authentic Leadership construct and the cognitive, emotional and behavioural traits which are associated with it, a significant contribution to the epistemological knowledge surrounding Authentic Leadership will have been made.
In summary, the literature review revealed that Authentic Leaders are posited to know their core beliefs and values and use these to make informed decisions about what ‘the right thing to do’ is at any given time. They are meta-cognitively aware; they know how they and others think and they use this information to take a multi-perspective approach to problem-solving and ethical and moral decision-making. They use their meta-cognitive awareness to understand themselves better and to self-regulate their subsequent behaviours. Authentic Leaders are committed to their own personal development and the development of their followers. They have high levels of emotional intelligence, moral integrity, moral courage and moral resilience and maintain their sense of self regardless of the situation or environment, (see Luthans & Avolio, 2003; May et al. 2003; Chan et al. 2005; Cooper et al. 2005; Eigel & Kuhnert, 2005; Gardner et al. 2005 a&b; Shamir & Eilam, 2005; Klenke, 2005; Ilies, 2005; Novicevic et al. 2006; Lagan, 2007; Avolio, 2007; Avolio & Chan, 2008; Garger, 2008 and Walumbwa et al. 2008; and Gardner et al. 2011).

Humility is one of the classic Greek Aristotelian ‘virtues’ and has been described as:

“An accurate assessment of one’s characteristics, an ability to acknowledge limitations, and a ‘forgetting of the self’ ... To be humble is not to have a low opinion of oneself, it is to have an accurate opinion of oneself ... to have a sense of self-acceptance, an understanding of one’s imperfections and to be free from arrogance and low self-esteem”, (Tangney, 2002, pp.411-412).

The antecedent of humility therefore, is self-awareness.
The presence of accurate self-awareness is one of the very few characteristics of Authentic Leaders that all writers on the subject seem to agree upon. Humility and modesty are two of the critical characteristics of ethical leaders, (Treviño et al. 2003). These characteristics are also found in those people identified by Jim Collins as ‘Level 5 Leaders’, who exhibit both a moral capacity and a combination of cognitive and behavioural traits that enable the organisations under their leadership to consistently out-perform their competitors, (Collins, 2001 & Verbos et al. 2007).

“At the same time resolute and humble, they do their work conscientiously, responsibly and successfully; they care about the people they work with, ... the company, and about the community; they shun limelight and publicity, and live normal and quiet lives. Unlike narcissistic leaders, they are not driven by image and fame. ... Collin’s Level 5 leadership model is puzzling and intriguing. It also suggests that we need to view leadership from a much broader perspective than current leadership theory suggests”, (Kodish, 2006, p.452).

Perhaps the construct of Authentic Leadership could provide that lens, as a strong ethical component is the second characteristic that the writers on Authentic Leadership all seem to agree upon.

May et al. (2003), p.248, suggest that Authentic Leaders, “Exhibit a higher moral capacity to judge dilemmas from different angles and are able to take into consideration different stakeholder needs”. They therefore posit authentic leadership firmly within the Stoic position, and add a multi-perspective, ‘meta’ dimensionality to it, specifically regarding the solving of complex moral dilemmas. The multi-perspective approach is echoed by Verbos et al. (2007) p.23, “Authentic leaders use transparent decision processes and seek input from other members, signalling that ambiguous moral situations often require additional perspectives. ... This multiple
Perspective approach brings out moral complexities that are often inherent in difficult problems”. (see also Luthans & Avolio 2003; Chan et al. 2005; Hannah et al. 2005 and Eigel & Kuhnert, 2005).

Morals and ethics are our principles, which guide our subsequent behaviours. They are the personal standards of conduct which relate to our abiding sense of right and wrong, and as such link directly to our own beliefs and value systems and sense of self. Morals provide the praxis which links our cognitions and our actions; our thoughts to our resultant behaviours. Schulman, (2002), suggests that when we live up to our own and others’ ethical standards, we experience positive emotions relating to a sense of personal integrity and wholeness, i.e. an Aristotelian eudaemonic state, combined with a lack of cognitive dissonance. This notion of dissonance is consistent with Shamir & Eilam’s (2005) description of the requirement for Authentic Leaders to evidentially display a lack of leadership dissonance in the inherent congruity between their espoused leadership beliefs and their subsequent actions.

A moral act as one which is, “Intended to produce kind and/or fair outcomes”, rather than one which is defined by accepted social constructs, Schulman, (2002, p.500). Verbos et al. (2007), p.20, define moral capacity as, “A view of one’s work role as including an ethical responsibility to stakeholders, heightened awareness of the moral dimension of issues and a learned capability for recognizing, reflecting upon, and evaluating moral dilemmas”.

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This definition is set firmly within a professional capacity and ignores the personal moral perspective of Authentic Leadership. “Authentic executives, having a genuine sense of the self, are adaptive to situational and organisational demands, but do not sacrifice their personal moral code. Even when critical events occur, they retain self-confidence and the stability of their self-esteem”, Novicevic et al. (2006, p.72).

However, Authentic Leadership necessitates considerably more than just simply having a genuine sense of self and supporting genuinely held beliefs, “Authentic leaders posses the moral courage to act consistently with their beliefs when dealing with difficult moral issues. This courage to act in accord with deeply held values is what distinguishes ethical leaders from simply decent people”, Verbos et al. (2007, p.23).

‘Eudaemonia’ is ascribed to Aristotle and means, ‘Flourishing’. Consistent with Harter’s (2002) assertions regarding authenticity, Authentic Leaders are posited to experience an eudaemonic state in that their leadership activities are congruent with who they are and what they most strongly believe in. Secondly, eudaemonic well-being can also be considered in relation to the realization of one’s true and full potential across the sum total of one’s life span, (Keyes et al. 2002, as cited by Ilies et al. 2005). It therefore follows that Authentic Leadership leads, in both the short term and over the longer term, to a state of eudaimonia on the part of the leader, (Ilies et al. 2005; Ryan & Deci 2000, and Waterman, 1993), and also, as Gardner et al. (2005a), argue, a state of subsequent eudaemonic well-being amongst their followers.
2.12 A Critique of Authentic Leadership

There appear to be a number of flaws within the theoretical literature surrounding Authentic Leadership; some of them fundamental. The most critical of which appears to be a lack of an identified and generally agreed position regarding, ‘Who’s ethics?’ the Authentic Leader is theoretically assumed to be guided by. Whilst all theorists and researchers seem to agree that Authentic Leadership comprises a substantial ethical and moral component, (see Terry, 1993; George, 2003; Luthans & Avolio, 2003; May et al. 2003; Avolio et al. 2004 & 2005; Hannah et al. 2005; Gardner et al. 2005 a&b; Cooper et al. 2005 & Chan et al. 2005), with some even going so far as to suggest that Authentic Leaders are more ethical than other leaders, (May et al. 2003; Avolio & Gardner, 2005; Hannah et al. 2005; George & Sims, 2007 and Verbos et al. 2007), none differentiate between the ethical and moral components of Authentic Leadership or clearly establish the ethical and moral frameworks that Authentic Leaders are assumed to operate within or ‘should’ optimally operate within, (Lawler & Ashman, 2012).

The Oxford English dictionary defines moral as, “Concerned with the morals or morality of a person or group of people ... relating to human character or behaviour considered good or bad, ... right and wrong, good and evil, ... being ethical”. Leaderscape, (2012, p.40), define morals as, “The specific rules of conduct of a particular group or society”, and ethics as acting in ways that are, “Consistent with one’s own values regardless of the context”. Morals and ethics are our principles, which guide our behaviours. Moreover, they are terms which are often used synonymously, and are used as such within this thesis. Morals and ethics are the
personal standards of conduct which relate to our internal sense of right and wrong, and as such link directly to our own beliefs and value systems and sense of self. However, from a personal perspective, “Not everyone agrees on what is morally right or wrong, good or bad, ethical or unethical”, (Lewis, 1985, p.377). This is not necessarily a problem for ethics and morality as many legitimised frameworks of rules and standards exist within the West; these may be set down in religious creed, by law or by cultural or societal convention and are used to guide appropriate behaviour. However, it may be a problem for Authentic Leadership within its current conceptualization.

According to Schulman, (2002, p.500), a moral act as one which is, “Intended to produce kind and/or fair outcomes”, rather than one which is defined by accepted social constructs. Verbos et al. (2007), p.20, define moral capacity as, “A view of one’s work role as including an ethical responsibility to stakeholders, heightened awareness of the moral dimension of issues and a learned capability for recognizing, reflecting upon, and evaluating moral dilemmas”.

Leadership is often said to contain ethical and moral components; “Leadership sets the pace, communicates ethical standards, and establishes ... the tone of day-to-day reality ... without committed ethical leadership, ethical standards will not be established, maintained, and retained in the life of any organization”, Gini, (2004, p.11). “All forms of leadership try to establish the guidelines, set the tone, and control the manners, mores, and the morals of the organization of which they are a part”, Gini, (2004, p.12).
This shared understanding regarding ‘correct’ behaviours and how to handle ethical issues determines ethical decision-making and the ethical culture within an organization, (Sims, 1994, p.29). “One’s business ethics cannot be separated from his or her personal ethics, and ..... businesses will never be any more ethical than the people who are in (the) business”, (Lewis, 1985, p.377).

“For many moral analysts, leadership is a many-headed hydra”, (Bass & Steidlmeier, 1999, p.181). They suggest that the ethics of leadership rests upon three pillars: the first is psychological and concerns the moral character of the leader. The second concerns the ethical legitimacy of the values inherent within a leader’s espoused organisational outcomes. The third is the ethics and morality embedded within the processes and actions that the leader and their followers engage in whilst in pursuit of those outcomes, Bass & Steidlmeier, (1999, p.182). This Research project into the construct of Authentic Leadership is only concerned with the first pillar which regards the personal ethical and moral stance of a leader, specifically, the personal ethical position which the literature on Authentic Leadership seems to assume will be the inevitable stance of an Authentic Leader, who is assumed to be somehow ethically superior to other kinds of leaders. “Authentic leaders posses the moral courage to act consistently with their beliefs when dealing with difficult moral issues. This courage to act in accord with deeply held values is what distinguishes ethical leaders from simply decent people”, (Verbos et al. 2007, p.23). The person most likely to act ethically is one with a well-defined personal code,
(Bowman, 1976), suggesting that a leader’s individual leadership style and personal code of ethics warrants further investigation as this is one of the things that, in theory, differentiates Authentic Leadership from other leadership models.

The idea of the ‘personal moral and ethical code’ of Authentic Leaders is important, as it isn’t specifically defined within the Authentic Leadership literature, (Lawler & Ashman, 2012), who also call for caution regarding becoming carried away by the rhetoric of Authentic Leadership, pointing out that it is not immutable in that leaders have their own differing moral and ethical frameworks and value bases. Their implication being that, without empirical evidence, the Authentic Leadership model should not be considered ‘better’ than other leadership models, even the ethically based ones.

In an attempt to shed light upon the fundamental dilemma of, “who’s ethics”?, the answer to which is beyond the scope of this research project, which concerns, after all, the concept and construct of Authentic Leadership rather than ethics per se, it is useful to refer back to the original starting point for the research, which was Novicevic et al.’s (2006) differentiation between psychology and philosophy and examine ethics through an integration of those lenses.

Aristotle’s concern for the community through an individual living a ‘good life’, and ‘flourishing’, or the Greek term, ‘eudaemonia’ is fundamentally grounded in what has become known as ‘virtue ethics’, that is, ethics are seen as embedded in the psychological character of an individual, (see Alzola, 2012; Audi, 2012; Brown &

Ethics viewed through the lens of psychology sees virtues as psychological traits, which are stable over time and context and which an individual leader may be perceived as having more or less of, “traits of character that constitute praiseworthy elements in a person’s psychology”, (Audi, 2012, p.273, see also Alzola, 2012). In this sense, “In a perfectly virtuous person, .... there will be a unity of character, a kind of integrity, which provides an overall framework for decision and action”, (Audi, 2012, p.274). Could such a person then, from an Aristotelian perspective, be considered an Authentic Leader?

Writing on Authentic Leadership and adopting the perspective of May et al. (2003), Verbos et al. (2007), p.20, define moral capacity as, “a) a view of one’s work role as including an ethical responsibility to stakeholders; b) a heightened awareness of the moral dimension of issues; and c) a learned capacity for recognising, reflecting upon, and evaluating moral dilemmas”. They fail however, to define what they mean by moral or ethical, or to offer any more detail on an ethical organisation, other than to say that, “The right thing to do is the only thing to do”, (Verbos et al. 2007, p.17). The philosophical position by which they define ‘the right thing’ for an Authentic Leader to do is not stated, although from an Aristotelian, perspective, “The right thing to do, according to virtue ethics, is what an agent with a virtuous character would characteristically do”, (Alzola, 2012, p.379).
Sharp, (1898), writing on moral decision-making, found difficulties in identifying the ‘right’ ethical answer, as the people he interviewed rarely agreed. He concluded that it was only logical to assume that individuals were using different personal ethical frameworks that were incompatible, (cited by Forsyth, 1992). One conceptual framework which seems relevant to the literature on Authentic Leadership is the Idealist / Relativist continuum and Forsyth’s taxonomy upon which it is based, (Forsyth, 1980 & 1992), (see Figures 14 and 15).

**Fig. 14: Forsyth’s Taxonomy of Ethical / Moral Philosophies**


<table>
<thead>
<tr>
<th>Ideology</th>
<th>Dimension</th>
<th>Approach to ethical / moral judgements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situationist</td>
<td>High Relativism</td>
<td>Reject ethical &amp; moral ‘rules’. Concerned with achieving the best outcome for all.</td>
</tr>
<tr>
<td></td>
<td>High Idealism</td>
<td></td>
</tr>
<tr>
<td>Subjectivist</td>
<td>High Relativism</td>
<td>Reject ethical &amp; moral ‘rules’. Base decisions &amp; actions on personal beliefs &amp; values.</td>
</tr>
<tr>
<td></td>
<td>Low Idealism</td>
<td></td>
</tr>
<tr>
<td>Absolutist</td>
<td>Low Relativism</td>
<td>Conform to ethical &amp; moral ‘rules’ to achieve ethical &amp; moral outcomes.</td>
</tr>
<tr>
<td></td>
<td>High Idealism</td>
<td></td>
</tr>
<tr>
<td>Exceptionist</td>
<td>Low Relativism</td>
<td>Feels that conformity is desirable, but will that exceptions to the ‘rules’ are permissible.</td>
</tr>
<tr>
<td></td>
<td>Low Idealism</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Forsyth (1992)
The dimensions of Idealism and Relativism are well recognised by both psychologists and moral philosophers, (Boyce & Jensen, 1978). Using a framework of personal moral philosophies proposed by Forsyth, (1980 & 1992), it’s possible to explore, theoretically, what an Authentic Leader’s position might be within the Idealist / Relativist taxonomy. Relativists reject the concept of universal ethical absolutes, believing that ethical decisions can only be made based on personal beliefs and values. They secondarily believe that the ethical outcomes of any decision are more important than the ethical principles that are engaged with, even if an ethical principal is violated. In contrast, those leaders scoring low on Relativism would argue that acting ethically requires acting consistently within universal ethical principles, therefore the ‘right’ course of action is always easy to identify.
Idealists espouse the well-being of others as the highest ethical and moral outcome of any decision. In an ideal world they would always avoid harming others in any way as a result of their decisions and actions. Those leaders who score lower on the Idealistic dimension assume that it is not possible never to harm anyone and that sometimes harm will be inevitable in the goal of good. When these two dimensions are transposed onto a grid, Forsyth, (1992), suggests that four philosophical positions emerge: Situationalism, Subjectivism, Exceptionalism and Absolutism.

Situationalists score highly for both Relativism and Idealism. They reject the idea of universal ethical principles whilst believing that decisions should maximally benefit all of those effected and affected by them and believe too that context, situation and circumstance should always be taken into consideration when judging, evaluating and deciding upon a decision or course of action.

Subjectivists base ethical judgements on their personal beliefs and values, believing that it’s acceptable for others to do the same, therefore they also reject the idea of universal principles. Exceptionalists adhere to generally accepted ethical rules and standards whilst being prepared to allow exceptions to them. Absolutists believe that without exception, everyone should strive to achieve positive ethical outcomes by always sticking to moral and ethical truths.

Moral and ethical decision-making by an Authentic Leader seems to be perceived in the Authentic Leadership literature as a personal construct and is therefore relative to the personal beliefs and values of each individual leader. This
does not assume however that every Authentic Leader will take a Relativist or Situationalist position.

Ultimately, as a leader is encouraged to be authentic within the concept of Authentic Leadership, it is for each leader to decide for themselves what their personal moral and ethical positions are as they relate to their personal beliefs and values and therefore their personal philosophy of leadership, (Cunliffe, 2009, and Lawler & Ashman, 2012). If Authentic Leaders are theoretically considered to be highly ethical, is there a ‘right’ or ‘wrong’ philosophical perspective regarding ethics and morals within the Authentic Leadership construct, or, theoretically, are all ethical and moral positions within Forsyth’s (1992) taxonomy equally as valid? This question falls outside the scope of this research project. However, its identification is important, and it forms part of the suggested areas for future research within the field, (Lawler & Ashman, 2012).

Ford & Harding, (2011), argue that from an Object Relations perspective, Authentic Leadership, with its emphasis on a leader being their ‘true self’ is not only an impossibility, but may actually cause harm and damage to organisations and to those followers who attempt to copy or emulate an individual leader’s belief and value system. They further claim that, “The authentic leadership model refuses to acknowledge the imperfections of individuals”, Ford & Harding, 2011, p.463). However, this perspective is at odds with Kofman & Senge’s (1995) description of authenticity, who suggest that authenticity is a willingness to embrace and include all of our parts, even the ‘dark’ ones, and that this very willingness allows such ‘demons’
to be transformed into ‘teachers’ for those leaders who are willing to learn. Although, that said, Ford & Harding’s criticism does seem to be true of the literature surrounding Authentic Leadership.

Clearly, as the literature surrounding Authentic Leadership is still relatively new, there is scope for much more debate around the construct and its connections to and with other fields of study such as leadership, psychology and philosophy. It is hoped that this research study will contribute to that debate.

2.13 The Research Problem

- An extensive literature review reveals fragmented and potentially contradictory theoretical perspectives on Authentic Leadership, (Avolio & Gardner, 2005; Gardner et al. 2005a; Avolio, 2007; and Gardner et al. 2011).

- Whilst a number of theoretical perspectives exist and the surrounding literature continues to increase, there is a lack of empirical research regarding the construct of Authentic Leadership, particularly within the UK, (Gardner et al. 2011).

- Of the positivist, empirical research which does exist, (see Lagan, 2007, and Walumbwa et al. 2008), population samples comprise US multi-cultural student populations, not leaders with any significant ‘real world’ leadership experience. The implications of this being, potentially: less reliable data; less valid data; difficulties in generalizability and even, possibly therefore, a flawed underlying construct.
2.14 The Proposed Theoretical Model of Authentic Leadership

I propose a theoretical model of Authentic Leadership that is fundamentally grounded in the work of Novicevic et al. (2006), who differentiate authenticity and Authentic Leadership between its psychological and philosophical aspects. Within the proposed model, Authentic Leaders are those leaders who are perceived to be both psychologically self-aware and philosophically ‘sound’ in their moral and ethical decision making and treatment of others; balancing their own needs with those of their wider professional community. In this sense, leadership is viewed as predominantly a pro-social activity, performed for the benefit of others, rather than for the leader themselves.

There are four factors within the proposed model; two of which relate to the Psychological Self and two of which relate to the Philosophical Self. Self-Awareness and Self-Regulation are the two factors that fall within the Psychological Self, whilst Ethical Virtue and Ethical Action are the two factors that fall within the Philosophical Self. Self-Regulation is viewed as the behavioural manifestation of Self-Awareness, and Ethical Action is viewed as the behavioural manifestation of Ethical Virtue, as behaviour is posited as subsequent to cognitions and emotions.

Within the proposed model, Authentic Leadership is deemed to be present only when there is an overlap between the philosophical self and the psychological self, i.e. within a leader who is both self-aware and highly ethical. (Please note that the terms ‘moral’ and ‘ethical’ are used synonymously within this thesis, as that reflects the findings of the Literature Review). The proposed theoretical model is shown in Fig. 16.
The aspects comprising each of the proposed theoretical factors are:

1) **Self-Awareness:** (cognitive) - Involves understanding our own cognitions, emotions, beliefs and values and how these influence our mental and emotional states. Being cognisant of the effect and impact that we have on others and being aware of how our words and actions may affect others to the extent that we possess the meta-cognitive capacity to be able to predict not only our own thinking processes and resultant behaviours but also those of other people. Implicit within Self-Awareness therefore is also Other-Awareness.
2) **Self-Regulation**: (behavioural) - Is the conscious and deliberate control of our thinking and our emotional and mental states that occur as a consequence of our Self-Awareness. Self-Regulation also involves managing our energy levels as well as the active management of our behaviours and being a positive role model for others.

3) **Ethical Virtue**: (cognitive) - Comprises our ethical and moral principles; our internal sense of honesty and integrity. It involves viewing ethics as a conscious choice rather than as a compromise and includes believing that a leadership role includes an ethical responsibility to others; our peers, followers and subordinates, as well as to the wider community. Ethical Virtue also comprises taking a multi-perspective and moral approach to all research, problem solving and decision making, not simply to ethical and moral dilemmas only.

4) **Ethical Action**: (behavioural) – Involves actively displaying moral and ethical integrity in our decision making and subsequent actions that are consistent with our moral and ethical virtue in all professional spheres. Sharing our ethical beliefs with others, actively displaying moral courage and being morally and ethically steadfast in the face of dissent from others.

Implicit within the model is the link between a leader’s thoughts and their resultant actions; between their cognitions and their subsequent behaviour. This is shown in Figures. 17 and 18.
Fig. 17: The Link Between Thoughts and Actions

The Link Between Thoughts and Actions

Psychological Self

1. Leader Self-awareness (Cognition)  Thoughts lead to actions  2. Leader Self-regulation (Behaviour)

Philosophical Self

3. Leader Moral Virtue (Beliefs + Values = Cognition)  Thoughts lead to actions  4. Leader Moral Actions (Behaviour)

Fig. 18: The Cognitive/Behavioural Aspects of Authentic Leadership

The Cognitive/Behavioural Aspects of Authentic Leadership

Psychological Self  Philosophical Self

1. Self-Awareness (cognitive)  3. Moral virtue (cognitive)
2. Self-Regulation (behavioural)  4. Moral Actions (behavioural)

Authentic Leadership

Proposed Authentic Leadership Model (adapted from Nworb et al. 2005)
2.15 Conclusion

This chapter has explored, summarised and critiqued the literature surrounding Authentic Leadership; its antecedents and current conceptualisations, and posited a new theoretical model of Authentic Leadership which makes a clearly identified epistemological contribution to the field.

The following chapter details the research philosophies which underpinned this particular research project, as well as the research design and methodologies employed. It also details participant samples and the specifics of each research study which was undertaken.
Chapter 3 – Research Classification, Underpinning Research Philosophy, Research Design and Methodology

3.1 Introduction

This chapter opens by defining how research is classified and therefore the specific research classifications of this study, before going on to detail the philosophical positions which underpinned it. The research approach, design and design methodologies associated with the research are specified, as are details of the population samples used for the different studies.

The chapter continues with a discussion of the ethical considerations inherent within research studies and the specific ethical considerations of this study per se. The RAF requirements for officer participation in the project are specified, followed by a summary of the necessary statistical and psychometric properties for the empirical development of a 360⁰, multi-source feedback instrument.

Data collection, sampling issues, validity, reliability and generalizability issues are all then detailed and explored before the chapter concludes with the specific methodological details and research approach employed for each separate research study.

3.2 Research Classification

Research is, “essentially an intellectual and creative activity”, (Verma & Mallik, 1999, p.13). However, this statement could be true of many academic or business focussed tasks, therefore there must be more to research than simply being a creative and intellectual act.
Research is, “the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of data”, Mouly, (1978, p.12). It is also a, “critical and self-critical enquiry, which aims to contribute towards the advancement of knowledge and wisdom”, Bassey, (1999, p.38).

Research then, is purposeful in that it is solutions focused towards resolving some kind of a problem or issue which makes a valuable contribution to epistemology. It is systematic and logical as well as being creative, as the interpretation of data is recognised as being a creative act, (Field, 2009), and importantly, it is also both a critical and self-reflexive process, (Cunliffe, 2004), (see also Morgan & Smircich, 1980).

One of the difficulties with the term ‘research’ is that it means different things to different people and there is no general consensus of opinion within the literature as to how it should be defined, (Collis & Hussey, 2009, p.3 & Watson, 1994).

Research can be classified using a number of different taxonomies depending on the discipline they sit within, (see Hussey & Hussey, 1997; Verma & Mallick, 1999; Collis & Hussey, 2009). As this research project sits within the discipline of business and management research, Collis & Hussey’s (2009, p.5) classifications are most relevant. They suggest classifying research according to the following: its purpose; the process; its inherent logic; and its predicted outcome, although these classifications are not discrete and it is recognised that there may be some overlap and complementarity between the terms, (Collis & Hussey, 2009), (see Fig. 19).
Exploratory research is conducted when little prior research has been done into an idea, area, issue or problem. The aim of Exploratory research is to explore; to identify patterns or hypothesis, rather than testing or confirming previously identified hypothesis, (Collis & Hussey, 2009, p.5). As very little research has previously been done into the construct of Authentic Leadership and its psychometric properties, in that sense then, this research can be described as *Exploratory*.

Descriptive research goes further than Exploratory research in that it attempts to identify the specific characteristics and attributes pertinent to the researched area. As this research project endeavours to distinguish some of the specific cognitions, emotions and behaviours associated with the construct of Authentic Leadership by Authentic Leaders, this research can also be described as *Descriptive*.
Analytical, (Explanatory) research is yet a further continuation of descriptive research, where the researcher goes beyond simply describing characteristics to attempting to analyse and explain and therefore understand how or why something occurs, usually by measuring causal relationships between phenomena, (Collis & Hussey, 2009, p.6). As this research project utilises statistical techniques to examine and analyse the psychometric properties of Authentic Leadership, in this sense, it can also be described as both Analytical and Explanatory.

Predictive research goes beyond identifying and measuring causal relationships, to attempting to generalise research results to other situations or population samples, “The solution to a problem in a particular study will be applicable to similar problems elsewhere if the predictive research can provide a robust solution based on a clear understanding of the relevant causes”, Collis & Hussey, (2009, p.6).

This research study can be considered Predictive in two ways: firstly, by using multiple population samples it is possible to predict that the outcomes and results will be generalizable to other, diverse, population samples, (Field, 2009). Secondly, in its identification of the potential reasons as to why leaders fail, a possible solution may therefore be indicated regarding the potential causes of leadership failure, which is not only highly significant, but pertinent to all theoretical and pragmatic leadership development. This line of argument, and the potential significance of this research study to the epistemology of leadership and leadership development is explored further in Chapter 5.
Although qualitative data which can be analysed numerically can also, methodologically, be considered to be quantitative data, (Collis & Hussey, 2009, p.7), regarding the research process, as this was an empirical, statistical study, using primary data, this research project clearly sits within the positivist, quantitative paradigm. No qualitative data collection was designed into the main validation study, although comments and feedback were sought from those participants who volunteered for the second validation study which was used for the Confirmatory Factor Analysis (CFA). The qualitative data obtained from participants pertained to Face Validity which is discussed in 3.11.2 and 4.3.

It is well recognised, within business and management research, that there is sometimes a disparity between the style of research done where the outcome is purely for research purposes, compared to the research done where the outcome is designed to address a business problem. This is sometimes referred to as the *relevance vs rigour debate*, (see Keleman & Bansal, 2002; Gibbons et al., 1994; Hodgkinson, 2001 & 2008; Huff, 2000 and MacLean et al., 2002).

Regarding the research outcome, Basic, or Pure research describes studies which are designed to make a general or specific contribution to theoretical knowledge or understanding. Applied research on the other hand is designed to make a contribution to a specific or general problem or issue in the real world. In that it seeks to solve an existing business problem; that of understanding the complex and fragmented construct of Authentic Leadership as it is manifested by real UK leaders, this research study is considered to be *Applied* in nature.
In addition to the distinction between Basic and Applied research, Gibbons et al., (1994), codified a way of collecting research data into a classification known as Mode 1 and Mode 2 research. Mode 1 research is predominantly academic, theoretical, basic, pure, research; done to extend knowledge or theory for its own sake, whilst Mode 2 research is applied research; done to resolve a business problem or gain useful insights for practitioners. This research was clearly applied, Mode 2 in nature, although Huff, (2000), argues for a ‘Mode 1.5’ which would combine the discipline and scientific rigour of Mode 1 with the practical problem solving of Mode 2. In that sense then, due to the scientific rigour deliberately and actively applied at every stage of the research project, this research study could perhaps be better described as Mode 1.5 research.

Inductive and Deductive are the two typologies which describe the methodological approach to the inherent logic of research; whether it moves from the specific to the general, or from the general to the specific. Inductive logic describes a process whereby theory is developed from observation and general inferences are made. Where a conceptual or theoretical structure is identified and developed which is then empirically tested via some kind of observational methodology, the logic is said to be deductive. By using a classic psychometric approach, (Nunally, 1978; Kline, 1979), this research project was clearly deductive in its methodological logic.

This research study was also Nomothetic in nature. The terminology was originally coined by the Kantian philosopher Wilhelm Windelband to describe two
approaches to epistemology; to the generation of knowledge and what is knowable. Nomothetic research describes an approach that attempts to generalise, studying objective phenomena in order to identify general laws. Ideographic research, by comparison, describes an approach that studies specific, often subjective, phenomena. Therefore by Windelband’s classification, (Heinrich, 1929), in its efforts to study the conceptualisation and construct of Authentic Leadership and identify some general ‘laws’ that are true of it, within the area of business and management research, this research study is held to be a nomothetic one.

However, we know that rhetorically, language is critically important within any research undertaking, and never more so when it is used contextually, to define and classify a research study. Whilst clearly nomothetic in nature within business and management research, this study also straddled the constructs and paradigms of psychology and psychometrics, which it is important to mention here regarding nomenclature and taxonomy. Within the field of psychology, in 1937, the psychologist Gordon Allport borrowed Windelband’s terms and applied them to the field of psychological and psychometric study, (Allport, 1937). Within Allport’s taxonomy, an Ideographic approach is used to describe the study of an individual who is perceived as being set apart from other individuals by certain properties. A Nomothetic approach is taken to be the study of groups or cohorts of individuals. Therefore from the perspective of psychology and psychometric theory, as the purpose of the study was to be able to statistically differentiate, empirically and psychometrically, the less Authentic Leader from the more Authentic Leader, this research study is clearly held to be an ideographic one.
This parallel classification of ideographic research, essentially contradicts Windelband’s nomothetic classification if we hold research to be independent. However, research is rarely only one thing; within academia and the genre of research there are frequent overlaps and complementarity within contexts and constructs, (Collis & Hussey, 2009).

Despite sitting within the paradigm of applied business and management research, methodologically, by using a 360° design, this research was essentially psychometric in nature and therefore a methodological construct may be superimposed upon its contextual one and it may be considered both ideographic and nomothetic.

3.3 Underpinning Research Philosophies

Whilst understanding the academic classification of a piece of research is important, that on its own is not sufficient to situate the research within either the academic or applied literature. It is also critically important for both the researcher and the reader to understand the ontological, epistemological, axiological and rhetorical philosophical positions which underpin a research study, as these also inform the nature of the research, (Morgan & Smirich, 1980 & Cunliffe, 2004). The philosophical positions are shown in Fig. 20 and are explored as follows.
As this research study was clearly situated within the positivist, quantitative paradigm, ontologically, reality is assumed to be objective and independent from the subjective perspective of research participants. Epistemologically, the researcher is also deemed to be independent of research participants rather than interacting with them. Methodologically, this was made easier within this research study as all communication with research participants was facilitated on-line.

Rhetorically, the language utilised within the research was formal and impersonal as opposed to informal and personal and Axiologically, regarding values, within a positivistic, classic psychometric methodological approach, both participants and the researcher were assumed to be values-free, unbiased and detached from what was being researched. However, herein lies a potential problematic, as potentially, research is not values-free, but profoundly values-laden, (Cunliffe, 2004).
It could also be argued that leadership, by its very nature; that of being ‘embodied’ within an individual, cannot be values-free, but is in fact, profoundly values-laden. Although all participants and their raters were directed to complete the questionnaires objectively, it could be argued this task is theoretically and practically impossible, (Ratner, 2002 and Cunliffe, 2003; 2004; 2009 & 2010), and that therefore the theoretical issue of potentially blurred boundaries from an objective / subjective perspective should be taken into account when reviewing any results and outcomes from the research.

Taking an objective, positivist approach to what is essentially a subjective topic; that of leadership as it is embodied within an individual, researched from the ‘outside’ by a researcher, presents us with both philosophical and methodological issues when crafting research, (Cunliffe, 2003 & 2010). Validity, objectivity and scientific methodology are irrelevant issues within qualitative, subjective research, according to Ratner, (2002), however, to understand people’s psychology, researchers must organise their subjectivity appropriately using processes and methods which can test the validity of theoretical constructs, (Ratner, 2002). In other words, subjectivity must be researched objectively! Add to this perspective the requirement to ‘craft’ research ‘beautifully’, by taking a thoughtful and deliberately reflexive approach, (Cunliffe, 2010) and the blurring of boundaries between Morgan and Smircich’s (1980) continuum of objective and subjective typologies, and the research paradigm becomes even more problematic.
“We do not typically think of our research as needing to be beautiful – we think of the need for rigour, legitimacy, and validity. Yet one does not necessarily negate the other”, …. I suggest beauty and rigour lie in crafting our research carefully and persuasively”, (Cunliffe, 2010, p.21)

Where ‘crafting’ research means, “being careful about how we notice, bring to attention, and shape knowledge about organisational life”, (Cunliffe, 2010, p.5). The subjective / objective ‘problematic’ has led Cunliffe, (2010) to argue for a third paradigm, that of inter-subjective research, where elements from some, but not all, of each classic research approach may be present and where there is an inherent interplay and co-dependence between the two ends of the continuum.

Perhaps then, this kind of research project, where an essentially subjective topic is researched via a classically positivistic, objective methodology, in order to identify an empirically determined construct, via statistical methods, in the hands of a critically reflexive researcher, (Cunliffe, 2003), who recognises their own subjectivism, that of their research participants and moreover, recognises the socially constructed and historically temporally situated nature of reality, ... might this research project be considered to be ‘inter-subjective’, in some ways?

At the time of writing this thesis, the jury is out. However, as one of the PhD students Ann Cunliffe refers to as the inspiration for her 2010 article on crafting research and the three problematics of the objective, subjective and inter-subjective paradigms, this researcher would like to think so. (N.B. This line of thought is continued in Chapter 5 where the research project is discussed).
3.4 The Hallmarks of Scientific Research

Within business and management research there is a generally accepted taxonomy of the hallmarks of good scientific research, (see Teck Hui & Kia Fatt, 2008; Krishnaswamy et al., 2009; Sekaran & Bougie, 2010). These are shown in Fig. 21.

Fig. 21: The Hallmarks of Scientific Research

The first attribute is the imperative that any instigated research should be Purposeful and undertaken deliberately, thoughtfully and with clear objectives and outcomes. The purpose of this research study has been clearly defined in Chapters One and Two.

The second attribute is Scientific Rigour. An academically rigorous approach adds thoroughness, exactitude, precision and accuracy to any research undertaking. By following a deductive process and applying recognised psychometric
methodologies, (Nunally, 1978; Kline, 1979), every effort was made, at every stage of the research process, to ensure that the research was rigorous in every element of its execution. As the very essence of this research study lies with its inherent purpose to empirically define and measure the construct of Authentic Leadership, and future researchers will have access to the 360° questionnaires that have been empirically and statistically generated, attributes three and four, those of Testability and Replicability are also fulfilled.

Hallmark number five, Precision, refers to the closeness of the findings to ‘reality’ based on the sample used within the research, (Sekaran & Bougie, 2010). It reflects the degree of accuracy and exactitude of the results of the samples utilized, which is why it’s important that as much as possible, the samples used should be representative of the populations the researcher wants to generalize the results and outcomes to, (Field, 2009). Confidence is attribute number six and relates to the precision and accuracy of the research results regarding the level of confidence, or significance levels that the researcher can have in their results. It is usually expressed statistically as a probability level and is reported here in Chapter 4.

Objectivity is attribute number seven. The conclusions that the researcher draws via their data analysis and their interpretation of the results should be objective rather than subjective; they should be based on the facts of the findings derived from actual data rather than on any subjective or emotional suppositions. As this is empirical, positivist research, every effort was made to be objective and impartial.
regarding every element of the research design, methodological approach and implementation of the study as well as in the conclusions that were drawn from it.

Attribute number eight is Generalizability and refers to the applicability and transferability of the research findings from one situation, organization or population sample to other situations, organizations, samples or settings. The more transferable or generalizable the research findings and outcomes are, the greater the research’s usefulness and value, (Sekaran & Bougie, 2010). Generalizability and transferability are particularly important within leadership research where non-leadership student population samples are frequently used (Lagan, 2007). It is not known whether the results will be generalizable cross-culturally, indeed, this was a recognised limitation of the study and forms part of the suggestions for future research.

The final hallmark is Parsimony. Simplicity in explaining research results and outcomes is preferable to the generation of complex research frameworks that consider a greater or unmanageable number of factors. Simplification, as opposed to complexity, is the fundamental underpinning philosophy inherent within Occam’s Razor, (Occam, circa 1323; Domingos, 1999 & Spode, 1999), a research heuristic and a principal which is frequently applied to research studies, (Kelly, 2007). The principal of parsimony is inherent within the research design of this research project as Exploratory and Confirmatory Factor Analysis both utilize the principal of parsimony within their statistical methodology.
3.5 Research Design

Whilst the topic being researched, Authentic Leadership, is considered to be relational, inter-relational and a socially constructed paradigm and therefore inter-subjective in nature, (Cunliffe, 2009 & Cunliffe & Eriksen, 2011), the methodology employed to investigate it within this research study employed a classic psychometric approach, which is data-driven and therefore, objective in nature, taking a positivist, deductive approach, to statistically identify the component parts of the construct of Authentic Leadership.

From a design perspective, the research followed a classic psychometric approach, (Nunally, 1978; Kline, 1979). These Methodological positions echo the Philosophical positions detailed in Fig. 20 and are shown in Fig. 22. The Deductive approach is visually reflected in Fig. 23.

**Fig. 22: Methodological Positions**

<table>
<thead>
<tr>
<th>Methodological Positions</th>
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<tbody>
<tr>
<td><strong>Assumption</strong></td>
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<tr>
<td>Ontological (Reality)</td>
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<td></td>
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<tr>
<td>Epistemological (Knowledge)</td>
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<tr>
<td>Axiological (Values)</td>
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<td></td>
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<tr>
<td>Rhetorical (Language)</td>
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3.6 Research Process

As the research process closely followed the deductive method, it also took the form of a six-stage process, the stages of which are briefly summarised as follows. A visual summary of the six-stage research process reflecting the deductive method is shown in Fig. 24. Comprehensive and complete details of the research process for each discrete study are specified in 3.11.
Stage 1. An extensive literature review was undertaken comprising the following areas: authenticity; leadership; authentic leadership and authentic leadership development. As they were relevant to the field of study, the population sample or the research process, the following areas were also explored and reviewed, although the depth of their review was not as quite as extensive: classic psychometric theory and design; multi-source feedback; the Royal Air Force; military leadership. Research philosophies, research ethics and research methodologies within the field of social science research was also examined as the fields of psychology and business and management research all fall within that remit, (see Fig. 1).

Stage 2. The Literature Review in stage 1 resulted in a new, four-factor, theoretical model of Authentic Leadership being identified and developed (see Fig. 16). Hypotheses regarding the model were also identified and developed. Consideration
was given to the following areas: research ethics; the population samples that could be used to test the hypothetical model and the research approach. This resulted in a research proposal and submission to the University’s Ethics Committee for approval to proceed with the research, which was successfully obtained with no requirement for clarification or revision.

A UK business population sample via the on-line internet forums of the UK Chartered Institute of Personnel and Development, (CIPD), and the UK Institute of Directors, (IoD) was identified for use within the initial pilot study; the Exploratory Factor Analysis, (EFA), and also for use in the second validation study; the Confirmatory Factor Analysis (CFA). In parallel, arrangements were made with the Royal Air Force Leadership Centre at RAF Cranwell in Lincolnshire to set up the systems and procedures that were required for the on-line participation of serving senior RAF officers and their selected raters in the validation study. Also in parallel, on-line software was identified for use in the pilot study, the validation studies and the generation of the 360° profiles and feedback reports, which were negotiated as a condition of participation by the RAF.

Survey Monkey was used for the initial pilot study, the Exploratory Factor Analysis and the Confirmatory Factor Analysis, as these were both self-reported, self-perception studies. Consulting Tools’ Custom View 360 was used for the validation study with the RAF as that employed a multi-source, multi-rater, feedback methodology. Copies of invitation emails and of the software instructions to participants can be found in Appendix 5.
To test the hypothesized four-factor model of Authentic Leadership empirically, a deductive approach was taken to item generation to identify the construct and content of Authentic Leadership. Initial item statements were developed based on the extensive literature review of authenticity, leadership, Authentic Leadership and Authentic Leadership Development previously described in Chapter 2.

150 item statements were written by the researcher to reflect the four hypothesized dimensions of the Authentic Leadership construct. To assess their adequacy, they were subsequently reviewed by an expert panel comprising experienced leadership development specialists, psychologists, psychometricians, and academics with psychometric experience. This resulted in the removal of some items and the addition of others, resulting in a final item bank of 100 items, 25 per dimension, which were used in the pilot study (see 3.11.1). These items also formed the core statements for the item bank for the validation study, although for concurrent validity purposes, the validation study questionnaire also included Walumbwa et al.’s (2008) 16 item statements.

Stage 3. The purpose of the pilot study was to explore, in general terms, whether the hypothesized four-factor model of Authentic Leadership had any initial validity and would therefore be worth exploring further. 140 experienced business leaders who were either CIPD members or IoD members, voluntarily completed the on-line questionnaire in a self-report, self-perception, format, via Survey Monkey, (see 3.11.1).
The equivalent of an Exploratory Factor Analysis using SPSS’s Principal Component Analysis function was undertaken to identify the underlying factor structure within the data. Cronbach’s alpha co-efficient was also used to statistically identify the internal reliability of the factor scales which were identified. As these were found to be acceptable, the validation study was implemented with no further changes to the item bank.

In the validation study, using a 360° multi-rater feedback design, 54 senior RAF officers were rated by their superior officers, subordinates and peers (N = 326) making a total participant sample of N = 380. The data from the RAF leaders and their raters was collected via Consulting Tools’ on-line 360 ‘white label’ system which had been specifically programmed by the researcher with the appropriate item statements for each rater type: the leader; their superiors; subordinates and peers. This data was interrogated as detailed in each of the studies described in 3.11.3 and a shorter Authentic Leadership questionnaire developed as a result. To enable a Confirmatory Factor Analysis, (CFA), to be done, 303 experienced UK business leaders completed the final 15 item questionnaire via Survey Monkey.

**Stage 4.** The findings from the research studies are detailed in Chapter 4.

**Stage 5.** The findings from the research studies are discussed in Chapter 5.
Stage 6. The discussion of the research results and its outcomes, refinements to the theoretical model of Authentic Leadership, its contribution to theory and practice, the limitations of the research study, proposals for future research and final conclusions are all detailed in Chapter 5.

3.7 Participant Population Samples

As this research study is applied in nature, critical to the integrity of the research was the notion that all participants, in each of the studies, should be in a genuine position of leadership. It is sometimes the case that student populations are used for research as it is easier to manage their participation, (Lagan, 2007). However, when students are used in research, and those students are not a representative sample of the area where those results will be applied, the validity of the study can be questioned, (Kline, 1979; Lagan, 2007). This PhD research therefore used population samples comprised of real UK leaders for both the pilot study and the validation studies. In this way, every effort was made to ensure, as much as possible, the generalizability of the outcomes and results of the study from the three representative leadership samples, to other UK leadership populations, (Field, 2009).

In the pilot study, 140 leaders from UK business organisations (from all sectors, including the charity sector), participated. They were recruited on-line via the Institute of Directors, (IoD), and the Chartered Institute of Personnel and Development, (CIPD), on-line forums; both directly via the institution websites and also via their associated LinkedIn forums. Apart from their membership of a UK business institution, the IoD or the CIPD, and a confirmation of their professional leadership
role, detailed demographics were not requested from participants in the pilot study as detailed data analysis was not done and no feedback was to be given. A brief review of the data did confirm however that the gender split was an approximate 60:40 female to male ratio and that the majority of respondents had 10 or more years’ leadership experience.

For the validation study, 54 senior RAF officers volunteered to participate in the research study. Their age range varied from 30-51 with a mean age of 40.11 with a standard deviation of 7.27. Their length of service varied from 8-31 years with a mean of 19.23 years and with a standard deviation of 6.29. The overall gender split was a 80:20 male to female ratio although this did vary quite considerably by rank. More detailed analysis of the RAF population sample by officer rank is detailed in Fig. 25. The 54 RAF officers were rated by 326 other senior officers, colleagues and subordinates, approximately 10% of whom were civilians, making a total N = 380.

**Fig. 25: RAF Population Sample Statistics**

<table>
<thead>
<tr>
<th>RAF Population Sample Statistics</th>
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<tbody>
<tr>
<td><strong>Age Range</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Total Population n=54 Raters =326</td>
</tr>
<tr>
<td>Group Captain n=25</td>
</tr>
<tr>
<td>Squadron Leader n=19</td>
</tr>
<tr>
<td>Wing Commander n=10</td>
</tr>
</tbody>
</table>
As with the initial pilot study, participants for the Confirmatory Factor Analysis (CFA) study were recruited on-line and were limited to a population demographic of UK business leaders, again using population samples from the IoD and CIPD. Respondents were requested not to take part in the study if they had completed the original pilot questionnaire to ensure a new participant sample, (Field, 2009), even though, due to the part-time nature of this academic PhD study, the initial pilot study and the confirmatory factor analysis study took place four years apart.

In total, 303 UK business leaders took part in the CFA study. 58% were male and 41% female with 1% preferring not to specify their gender. 0% were under 20 years of age with 3% being between 20-30 years of age. 12% were between 31-40 years of age with 33% being between 41-50 years of age. By far the majority of the sample, 52%, were above 50 years of age, (Fig.26).

As previously stated, it was critical to the integrity of the research that all participants have direct leadership experience. Within this population sample of 303 UK business leaders, 5% had less than 5 years’ leadership experience, 18% had between 5-10 years’ leadership experience, with a further 18% having between 11-15 years’ of leadership experience. 14% reported having 16-20 years’ of leadership experience, with by far the majority of the sample, 45%, reporting having more than 20 years’ worth of leadership experience. These figures are shown in Fig. 26.
Fig. 26: CFA Population Sample Statistics

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Leadership Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>0%</td>
</tr>
<tr>
<td>20 – 30</td>
<td>3%</td>
</tr>
<tr>
<td>31 – 40</td>
<td>12%</td>
</tr>
<tr>
<td>41 – 50</td>
<td>33%</td>
</tr>
<tr>
<td>50 Plus</td>
<td>52%</td>
</tr>
</tbody>
</table>

Total population sample N = 303
M = 58%  F = 41%

3.8 Ethical Considerations

Ethical issues relate directly to the integrity of the research within the disciplines involved. Within the social sciences, of which business and management research forms a part, “it’s difficult to conduct much research at all without running into ethical arguments”, Coolican, (1992, p.249).

Diener & Crandall, (1978) suggest a four-factor taxonomy of negative ethics:

- lack of informed consent
- harm to participants
- invasion of privacy
- deception
However, ethical arguments and considerations within business and management research also comprise the following more specific issues: anonymity and confidentiality; dignity; direct or indirect harm to indirect participants; results; direct or indirect harm due to the publication and dissemination of results; the well-being of the researcher; data management; copyright; community standards of conduct and the principle of reciprocity. It seems as if different writers incorporate and emphasise a variety of issues under the broad heading of ethical considerations, as well as what’s considered good practice within them; academic writers, theorists, researchers, and practitioners often appear to differ quite widely from each other over ethical issues regarding what is and is not ethically acceptable, (see Bryman & Bell, 2011).

The principle of reciprocity suggests that research should be mutually beneficial to both the researcher and the participant, and that some form of collaboration should be built in to research from the outset, (ESRC Research Ethics Framework, 2012).

It is most often the case that, “A mutually beneficial exchange”, is achieved via the sharing of research findings, (Bryman & Bell, 2011, p.141), however within this research study, an active and collaborative relationship was negotiated and forged with the RAF Leadership Centre, at Cranwell, UK, from the outset, and all RAF officer participants received a personal report on their Authentic Leadership style and confidential 1:1 feedback, (see 3.9).

Within a research capacity, community Standards of Conduct are usually formal, i.e. written down publically, and refer to Guidelines or Codes of Ethics
published by those organisations and institutions which have a research interest. Within this research study the following ethical guidelines were used: The UK British Psychological Society’s Code of Human Research Ethics and The University of Hull’s own ethical guidelines for research. The following were also used as valuable reference points: The Association of Business Schools’ Ethics Guide and the Academy of Management’s Code of Ethical Conduct.

As previously described, before the pilot study commenced and any participants were recruited to take part in the research study, a research proposal was made to the University’s Ethics Committee, which was approved with no requirement for either amendment or further clarification.

The principle of voluntary participation, rather than participation because of any kind of coercion or pressure, is critical within the field of business and management research, (see Coolican, 1992; Bryman & Bell, 2011; Diener & Crandall, 1978). All participants within any part of this research study, whether they were leadership participants or their selected raters, volunteered to participate. Implicit agreement to participate was built in to all of the communication emails and also into the on-line systems which collected participant’s responses and their rater feedback. Also written into the communications was the ethical principle that participants or their raters could withdraw from the research process at any time.

However, informed consent implies more than simply voluntary participation. It also suggests that participants have actively elected to participate in research based
on a full knowledge and understanding of the research aims and objectives, inputs, processes, procedures, potential results, how those results will be used, how the results will be published and any potential harm or adverse effects that could be experienced, directly or indirectly. To comply with this ethical principle, information regarding Authentic Leadership and the research aims and objectives were also included in the emails and online communications to participants.

Confidentiality and anonymity are important ethical principles without which participants may feel that they cannot be completely honest in their responses or completely ‘themselves’, (Atkins & Wood, 2002). This is particularly important within a 360° design, where participants are rated by other people and may receive verbatim written feedback on their performance. It was important therefore that raters clearly understood that whilst their feedback scores and any personal comments would be aggregated, and they would not be identified in any way, that any written feedback they chose to include would be reported verbatim. Participants were also reminded to respect the courage that their raters had shown in being honest in their feedback remarks in case any comment made by a rater referred to a specific incident which could be used to identify them, (see the Authentic Leadership 360 sample report in Appendix 6).

Whilst this research study was a quantitative one and qualitative data was not actively collected or reported within the actual research study, rater feedback comments within each RAF officer’s personal leadership feedback report were included as a condition of participation by the RAF, (see 3.9).
Participants were contacted by the researcher only for the purposes of the study, all data was obtained and held securely by the researcher in line with current UK Data Protection Act requirements and was destroyed or deleted securely after the research project was completed. No potential invasions of privacy or personal dignity were identified.

There was no deliberate intention to mislead, deceive or harm participants in any way. Participants and their raters could not be identified in any way within the study unless only one rater within a 360° feedback category was identified. This was sometimes the case with ‘Superior Officer’ feedback, however, this circumstance was discussed with the RAF sponsor and agreed to be acceptable as RAF officers are regularly rated by their superior officers. Regarding the emotional well-being of RAF participants; all RAF leadership participants were offered confidential feedback on their personal profiles and reports to explore and discuss their Authentic Leadership scores and any other feedback they received, as is consistent with the British Psychological Society’s guidelines on best practice for the use of psychometric tests.

The physical and emotional well-being of the researcher is also an important ethical consideration, particularly where fieldwork is concerned, although qualitative, ethnographic research is considered to be a greater potential risk than quantitative, positivist studies as the researcher makes more personal comments and there is a greater level of self-disclosure, (Bryman & Bell, 2011, p. 129). No potential risk factors were identified regarding the well-being of the researcher within this particular
research study over and above the normal pressures and stresses associated with being a middle-aged woman with a husband and a demanding family who works full-time and endeavours to fit part-time PhD research around an already full schedule!

Regarding the dissemination and publication of the results of the studies, all scores were aggregated. However, being a military organisation, any information at all regarding RAF officers and their leadership performance is potentially sensitive, particularly within the public domain where potentially, terrorist organisations could have access to it via the internet, therefore the publication of any and all results was, and will be, subject to the direct approval of the Ministry of Defence, (MoD) at the highest levels. This potential sanctioning of results and their dissemination was facilitated via the RAF project sponsor at the Leadership Centre at RAF Cranwell, UK.

3.9 Royal Air Force Requirements

The RAF project sponsor of the research study at the RAF Leadership Centre, Cranwell, UK, made it a condition of RAF participation that all participating senior officers received two things: a personal 360° profile report which detailed their Authentic Leadership scores as rated by their superior officers, peers and subordinates, compared to their self-perception of their own Authentic Leadership performance, and also confidential 1:1 feedback. This was designed specifically to allow them to understand and explore their scores and verbatim feedback and to ensure their psychological well-being, as recommended within the ethical guidelines for the use of psychometric tests, (British Psychological Society, 2012), (Appendix 9).
Whilst research results are often shared, feedback is not always given to those participants who volunteer to participate in PhD research, therefore this requirement added to the scope and relevance of this research project by providing an imperative for the immediate application of the research in the real world with real leaders in an actively collaborative partnership with the RAF/MoD.

The design and writing of the feedback report occurred in parallel to the research in Stages 2-4 of the research process, (see Fig. 24), as the report was dependent, in part, on the analysis of the data collected within the research project. A copy of an anonymous example report accompanies this bound dissertation in Appendix 6 and forms part of the research outputs. As the feedback report was 360 in nature, no feedback was given to UK business leaders in either the pilot of the CFA studies as these employed self-rated designs.

As a positivist, quantitative piece of research, qualitative feedback was not specifically requested from the RAF officer participants in terms of the collaborative value of the research to them, however, a letter of thanks was received from the RAF project sponsor which described the research project as, “universally beneficial” to all of the RAF officers took part in it. A copy of this letter is included in Appendix 7.

3.10 Psychometric Design - Profiling Methods: Multi-Source Feedback (MSF)

The research design and methodology of this particular research project employed a classic psychometric approach (Nunnally, 1978 & Kline, 1979). Most psychometric questionnaires/instruments take a self-report format, however the
criticality of multi-source feedback instruments being designed to conform to the rigorous construct and statistical validity of personal, self-reported, personality profiling tools and psychometric instruments is well documented, (see Atwater & Yammarino, 1997; Yammarino, 2003; Bracken et al. 2001; London & Smither, 1995, and Gill & Hodgkinson, 2007), as without this rigour the requirements for good science will not be met.

3.11 Methodology, by Research Study

3.11.1 Study 1 – The Pilot Study: Item Generation, Content and Construct Validity

As previously described, an extensive literature review was conducted to explore and understand the theoretical and operationalized contributions to the field of Authentic Leadership and its associated complementary constructs. This is the first step in any deductive process of construct development and validation, (Hinkin, 1995), particularly as poor item generation will inevitably lead to poor content and construct measures which will ultimately lead to subsequent difficulties in interpreting the research results, “Success in observing true covariance between the variables of interest is dependent on the ability to accurately and reliably operationalize the observable construct”, (Schriesheim et al., 1993, p.968).

To test the hypothesized four-factor model of Authentic Leadership empirically, developed from the extensive literature review, 150 item statements were generated by the researcher which were subsequently screened and reviewed by an expert panel of psychologists, leadership development specialists, academics, psychometricians and business consultants, for comprehension, linguistic suitability and applicability to the
Authentic Leadership domain. In total, the combined number of years’ expertise in the specialisms of the individuals who made up the expert panel exceeded 180.

As a result of the expert panel review, ambiguous or controversial item statements were removed, as were any seemingly duplicated or very similar item statements, items which appeared to measure more than one thing, negative statements and any reverse-scored statements, as these have been identified as psychometrically problematic, (Kline, 1979; Nunnally, 1978; Hinkin, 1995, p. 972 & 974 and Gill & Hodgkinson, 2007). This resulted in a final item bank of 100 item statements; 25 per hypothesized factor. These formed the item bank for the pilot study. Some examples of these item statements are detailed in Appendix 8.

For the purpose of the initial construct and content validity, as the pilot study was exploratory, to identify whether the hypothesized model was worthy of further investigation, a self-report design was used as the questionnaire format. Whilst it is recognized that within a self-reporting construct, leaders tend to over-estimate their performance, (Atkins & Wood, 2002), this is irrelevant for the purposes of construct and content validity where it is the underlying factor structure and internal reliability which are critical, (Nunnally, 1978; Kline, 1979).

A 5-point Likert scale was used within the questionnaire as 5-7 point Likert scales have been identified as ideal, (Hinkin, 1995, p.974). The response options were: a raw score of 1 for Strongly Disagree; 2 for Disagree; 3 for Sometimes Agree; 4 for Agree and 5 for Strongly Agree. The use of Likert scales within psychological,
psychometric research is well documented (Nunally, 1978; Kline, 1979; Field, 2009); it limits the possible choices and response set by participants and ensures consistency. The data obtained should be treated as ordinal, as each respondent’s score is meaningful only relative to the scores obtained from the distribution of the scores of all of the other respondents, (Coolican, 2009, p.180).

Response bias, such as social desirability and acquiescence can sometimes be problematic within the responses to Likert scales, (Hinkin, 1995, p.974), however, this is mitigated within the validation study with RAF officers by the 360° research design, rather than utilising a self-report measure, (Atkins & Wood, 2002).

The item statements for each hypothesised factor were randomly ordered within the questionnaire as bundling theoretically related factor item statements together has been shown to artificially increase factor loadings and internal reliability figures. In contrast, the inclusion of negatively worded and reverse-scored items has been shown to artificially decrease factor loadings and internal reliability, (Gill & Hodgkinson, 2007), so for this reason only positively worded and positively scored item statements were included.

As previously described, 140 UK business leaders who were either members of the Chartered Institute of Personnel and Development (CIPD) or the Institute of Directors (IoD) completed the on-line questionnaire via Survey Monkey. Their data was examined using SPSS and the underlying factor structure identified using Principal Component Analysis, (PCA), rather than Exploratory Factor Analysis, (EFA), as SPSS
does not include an EFA function and PCA is deemed statistically similar regarding construct validity measures, (Field, 2009). Internal reliability data and correlation figures were also generated to explore the content validity of the construct and the item statements within it.

3.11.2 Study 2 – Face Validity

Face Validity is not an actual measure of statistical validity or reliability per se, but rather a reflection of the relevance to the subject being tested that the eventual users of a psychometric instrument perceive the tool to have (Nunnally, 1978; Kline, 1979). It is important to distinguish between the eventual users of a test, and experts in test development, as Anastasi, (1988, p.144) suggests that review by test or subject experts is a measure of Content validity rather than Face validity. Also, unlike Content validity, Face validity does not rely on established theories for support, (Fink, 1995).

Face validity includes all materials relating to a test or instrument, not simply the item statements, and includes the overall look of an instrument, its branding, marketing materials and its facilitator and user instructions. Face validity was especially relevant to the research study due to the specific RAF conditions of participation and the Authentic Leadership Questionnaire’s use with, and subsequent feedback to, the officer population who volunteered for the study.

As the researcher and author of this PhD thesis is a business psychologist and professional business consultant, relevance and professionalism were always paramount within the study and no materials were used with the RAF population
sample without the explicit review, agreement and approval of the RAF project sponsor, a senior RAF officer with more than 15 years’ experience of military officer leadership development.

The Face validity of each item statement was assessed firstly by the Expert Panel, secondly within the Pilot Study, thirdly, in the on-going review process between the researcher and the RAF project sponsor, where all of the materials were reviewed before use, including the online system for data collection and the feedback report. Fourthly, Face validity was assessed via the feedback that was requested from the RAF officer population who completed the questionnaire in the validation study regarding any specific words, questionnaire items or feedback report content they thought inappropriate or irrelevant to the subject of Authentic Leadership. This was requested at each and every stage of the research project and within every communication with the RAF officer population sample. Fifthly, the UK business population sample of 303 real UK leaders used for the Confirmatory Factor Analysis were asked whether they felt that the item statements which comprised the final questionnaire related to Authentic Leadership as they understood it to be.

3.11.3 Study 3 – The Validation Study: Content and Construct Validity, Factor Analysis, Principal Component Analysis and Reliability

Subsequent to the Pilot study which used a first-person, self-report format, the 360° questionnaires were written for use by the RAF officer sample. Therefore, superior officer, subordinate and peer questionnaires for the validation study were written using the same 100 item statements as for the original, pilot, self-report
leadership questionnaire but with slight subject pronoun adjustments. For example, “I” would become, “My Superior Officer/My subordinate/My colleague”.

In addition to the 100 item statements, to allow for further data analysis within a concurrent validity study, the final questionnaire that was used also included Walumbwa et al.’s (2008) 16 item statements.

The item statements were programmed into the on-line system and tested prior to use, in its 360° format, initially by the researcher, and subsequently, by the RAF Project Sponsor. Online invitations were sent out to the identified volunteer RAF officer population who were invited to nominate their raters and provide the contact details of those raters.

Nunally, (1978), recommends that for construct validity 10 times as many participants as variables are required, meaning that for this study, with an item bank of 100 variables, 1000 participants would be required. However, Comrey & Lee, (1992) class 300 as a good sample size, with Kass & Tinsley, (1979), recommending between 5 and 10 participants per variable up to a sample size of 300 after which they suggest that psychometric parameters tend to be stable regardless of the participant/variable ratio. Therefore, once a total population sample size of greater than 300 had been reached, a decision was made to begin data analysis.

Before beginning the data analysis for construct validity the data needs to be checked for missing data and outliers. Statistically speaking, ‘outliers’ are scores
which are so atypical of the general data set that they put the analysis at risk of erroneous conclusions and whilst it is acceptable to identify and exclude outliers from a population sample, there needs to be a very good reason for doing this, (Howitt & Crammer, 2008 p.23-24; Field, 2009). However, the use of a Likert scale limits outlying data and after statistical investigation of the data sets no unusual or outlying response sets were identified and excluded from the sample, therefore the data set was taken in its entirely with no statistical manipulation of any kind.

The principal of parsimony and of keeping data manipulation ‘simple’ particularly from a multivariate perspective such as Exploratory Factor Analysis, (EFA), and Principal Component Analysis, (PCA), is well documented,

“Factor analysis can be regarded as a scientific method. It is elegant and parsimonious (a few factors instead of many variables) and precise, each construct being mathematically defined by its factor loadings. ..... Rotation to simple structure is curiously a complex affair, (and) Cattell, (1966), argues that it is here that many factor analysis fail”, (Kline, 1979, pp.35-36).

Of course, Cattell, in 1966, was writing in an age before computers and when the mathematical correlations were all completed by hand and took weeks, however, the principle of a parsimonious solution within data analysis still applies.

EFA and PCA are widely used statistical techniques for situations in which a small set of unobserved, (latent), variables is believed to underlie a larger set of observed, (manifest), variables, which in the case of this research study these are behavioural variables relating to Authentic Leadership. EFA identifies the underlying factor structure in a data set without imposing any restrictions on that data set where a factor is an unobserved variable which is assumed to influence the observed
variables. PCA is similar to EFA in that it reduces the number of variables, however it differs from EFA in that within PCA a factor (the unobserved variable) is assumed to exert causal influence over the observed variables, (Brown, 2006, p.22). Within PCA the principal components are statistically weighted linear combinations of observed variables where the principal components account for the total variance, whereas within EFA the factors account for the common variance (as opposed to the unique variance), of a total variance, (Brown, 2006; Hatcher, 1994, p.9-10 & 69). The total variance within each variable is always made up of two components: common variance which is shared with other variables, and unique variance which is unique and specific to that variable. Random variance is error which is a unique variance, but not reliably so, (Field, 2009, p.637).

Psychometrically then, PCA is a sound statistical methodology, and, “The solutions generated from principal component analysis differ little from those generated by factor analytic techniques”, (Field, 2009, p.638). The statistical package available via the University of Hull is SPSS. SPSS employs PCA rather than EFA, and therefore within this particular research study, PCA was deemed acceptable to be used as the statistical method to identify the underlying component/factor structure within the validation study for construct and content validity purposes.

When considering factor or component identification it is important as a researcher to be clear whether the purpose of such statistical analysis is to apply the findings only to the population sample used, (descriptive method), or whether the purpose is generalisation to other population samples, (inferential method). PCA is a
descriptive method, therefore when using PCA, in order to be able to generalise any findings, more than one population sample must identify an identical factor/component structure, (Field, 2009, pp.636-7.)

In addition, it is important to be clear within PCA which rotation structure to employ as there are two: orthogonal (Varimax) and oblique (Direct Oblimin). Varimax rotation assumes that the factors/components are unrelated, whereas the direct oblimin rotation assumes that the factors/components are related and therefore allows, and calculates, the statistical correlations between them. If the factors/components are expected by the researcher to be correlated, then an oblique, direct oblimin rotation should be used, whereas if the factors/components are theoretically hypothesised to be unrelated, then an orthogonal, varimax rotation should be employed, (Field, 2009, p.644). Because theoretically, within the construct of Authentic Leadership, the factors/components are assumed to be related, an oblique, direct oblimin rotation was initially employed to explore the factor/component structure and their correlations with each other. Secondarily however, for additional information, an orthogonal, varimax rotation was also employed to explore the factor loadings of the construct if its component parts were deemed to be theoretically unrelated. The results are detailed in 4.4.

To determine whether a factor/component is statistically important and should be retained, Eigenvalues are used. Cattell, (1966), advocated the use of a visual method known as a Scree Plot diagram as graphically representing the eigenvalues of each factor makes them more apparent. A participant sample of
greater than 200 provides a scree plot which is considered to be a reliable factor/component selection criterion, (Stevens, 2002; Field, 2009, p.640). Kaiser, (1960), recommends retaining factors with an eigenvalue of 1, although Jolliffe, (1986), suggests retaining factors/components with an eigenvalue of greater than 0.7. When using PCA, it is recommended to use eigenvalues of greater than 1 as it is assumed that all variance is common variance, (Field, 2009, p.641, 652), therefore this is the methodology employed within this research. The resulting scree plot for the PCA using the RAF officer sample population is shown in 4.4, Fig. 29.

After identifying an acceptable factor/component structure, a number of statistical checks subsequently need to be made. The first of these is the Kaiser-Meyer-Olkin, (KMO), measure of sampling adequacy, which is reported between 0 and 1. Values between 0.5 and 0.7 are considered mediocre, between 0.7 and 0.8 are good, between 0.8 and 0.9 are very good and values above 0.9 being considered superb, (Hutcheson & Sofroniou, 1999; Field, 2009, p.647, 671 & 788), meaning that an EFA or PCA should yield distinct and reliable factors. Kaiser, (1974), recommends a lowest cut-off for acceptability of 0.5, beneath which more data should be collected.

Bartlett’s test for sphericity also needs to be reported and is based on the variance-covariance matrix. It identifies whether a correlation matrix is significantly different from an identity matrix. Within EFA and PCA a non-significant Bartlett test result suggests cause for concern within the data that significant factors/components are unlikely to be found, (Field, 2009, p.648).
Once a factor/component structure has been identified, the next step is content validity which identifies the specific variables that load onto each factor/component. To determine the number of factors/components within a given data set, factor loadings are used. Researchers generally use an absolute loading of greater than 0.3 to be significant, (Field, 2009, p.644), however Stevens, (2002), having identified a table of critical loadings and based on a two-tailed alpha significance level of 0.01, recommends a loading of greater than 0.722 to be significant for a sample size of 50, 0.512 for a sample size of 100, greater than 0.364 for a sample size of 200 and greater than 0.298 for a sample size of 300. This reduces to a loading of greater than 0.210 for a sample size of 600 and greater than 0.162 for a sample size of 1000. Stevens, (2002), however, recommends interpreting factor loadings with an absolute value of greater than 0.4 (as opposed to the 0.3 which is generally employed), as this explains around 16% of the total variance in the variable.

Once the individual item factor loadings have been identified, reliability issues within the data set can be addressed. Cronbach’s Alpha is the most common form of scale reliability, (Field, 2009, p.674) and internal reliability correlations between item statements and within factors/components using Cronbach’s Alpha co-efficient are often calculated first as an initial indicator of reliability, (Cronbach, 1984, 1986). Kline, (1999) suggests that whilst a cut-off greater than 0.8 is recommended for cognitive tests such as general intelligence, ability tests may have a cut-off of 0.7 and for complex psychological constructs such as leadership, an alpha co-efficient of less than 0.7 can often be expected, (Field, 2009, pp.675-680), (see also Kline, 1986).
Pearson’s Correlation Coefficient, also known as Pearson’s Product Moment Correlation Coefficient, shows a standardised measure of the strength of the relationship between two variables and is shown from -1 to +1 showing how much variance two variables have in common. It’s considered the dominant correlation index within psychological statistics and psychometrics, (Howitt & Cramer, 2008, p.69), and like Cronbach’s Alpha can be used to calculate inter-item correlations. If the factors/components identified are theoretically associated, then the inter-item correlations of the item statements between differing factors may also be statistically correlated at a significant level.

Spearman’s rho is another correlation coefficient which firstly ranks the data and then applies Pearson’s equation to those ranks. Its output is very similar to Pearson’s correlation coefficient, and both are useful measures of statistical significance, (Howitt & Cramer, 2008). Kendall’s tau is a non-parametric correlation used when the data set is small with a large number of tied ranks. As this was not the case with the Validation study data set, Kendall’s tau is not appropriate and was therefore not used.

3.11.4 Study 4 – Confirmatory Factor Analysis

Once a factor structure has been empirically derived, “It is highly desirable that a hypothesis that has been generated in this way should subsequently be confirmed or disproved by obtaining new data and subjecting these to a confirmatory analysis”, Joreskog, (1969, p.183), (see also Hutcheson & Sofroniou, 1999 & Hodgkinson & Sadler-Smith, 2003).
Confirmatory Factor Analysis, (CFA), is a form of Structural Equation Modelling (SEM) which is a family of statistical techniques which incorporate and integrate factor analysis with path analysis, (Garson, 2012. p.14). CFA is used to statistically test an identified factor/component model against a population sample, to test a specific hypothesis regarding the underlying factor structure and the relationships between the latent variables. In practical terms, it identifies that the originally identified underlying factor structure is robust, (Field, 2009; Howitt & Cramer, 2008, p.337).

Most often, a new population sample is used for CFA, however the original population sample used for an EFA/PCA is also sometimes used to explore the data further, (Garson, 2012, p.14, Gatignon, 2010). EFA differs from CFA in that CFA is much more theory driven (as opposed to data driven) and is generally used to test explicit hypotheses that a researcher may have developed regarding the relationships between variables and the factors/components and which they want to explore further and test statistically.

CFA is the basis of the measurement model in SEM and can be estimated using SEM software. AMOS is embedded within the SPSS software, and as SPSS is the statistical software package available at Hull University, AMOS was the methodology employed for the CFA within this study. AMOS compares the hypothesised model against two alternatives; the ‘saturated model’ which is the most general model possible and as such will fit any set of data perfectly, and the ‘independence model’ or
null hypothesis model, which, at the other extreme, assumes that none of the variables in the model are correlated, (Gill & Hodgkinson, 2007, p.746).

CFA employs a number of ‘goodness of fit’ indices to assess the degree to which the hypothesized model fits the new population sample, thereby confirming or disconfirming the original factor/component structure and its generalizability to other population samples. It is important to remember that model fit measures are interpreted as effect size measures rather than levels of significance measures and that, “Theoretical insight and judgement by the researcher is still of the utmost importance”, Garson, (2012, p.14) when determining what to measure, how to measure it, and how to interpret the results. This is particularly relevant as some fit indices may suggest a well-fitting model when only some parts of the model may fit well, whilst others may fit poorly, Hooper et al. (2008), (see also, Jöreskog & Sörbom, 1996; Tomarken & Waller, 2003; Reisinger & Mavondo, 2006), which has led some experts in the field to call for the abandonment of goodness-of-fit indices altogether! (Wheaton, 1987; Barrett, 2007).

When deciding which fit indices to report, it is important to include a variety of measures as different indices reflect different aspects of model fit, (Crowley & Fan, 1997; Hooper et al, 2008). An extensive literature review has led this researcher to report the following indices: the CFI; Chi-Square ($X^2$); RMSEA; GFI; RMR; TLI; and the $X^2/df$, some of which are Absolute Fit Indices and others of which are known as Incremental Fit Indices.
Model Chi-Square ($X^2$) is an absolute fit measure and is the traditional measure for assessing overall model fit, (Hooper et al., 2008, p. 53), however, it is sensitive to sample size, almost always rejecting the model when large sample sizes are used and it may not discriminate between good fitting models and poor fitting models when the sample size is small, (Hooper et al. 2008; Jöreskog & Sörbom, 1996), with West, Finch & Curran, (1995), finding that even with an adequate sample size, correct models are rejected with an error rate of up to 50%. For this reason, $X^2/df$, which is the Chi-square ratio to the degrees of freedom of the model, is considered to be a better measure, (Wheaton et al. 1977). However, the controversy does not end there with different writers disputing the acceptable ratio; ratios of between 1 and 5 are all suggested, with Wheaton, (1987) and Barrett, (2007), suggesting that the statistic be abandoned altogether, (Gill & Hodgkinson, 2007, p. 747; Hooper et al. 2008).

Root Mean Square Error of Approximation, (RMSEA), is another absolute fit measure which favours parsimony. Recommendations for RMSEA have changed over the years, but now seem to be 0.08 or less, (Gill & Hodgkinson, 2007; Browne & Cudeck, 1993). Root Mean Square Residual, (RMR), is an absolute fit measure which shows the difference between the residual of the sample covariance matrix and the hypothesised covariance model. An adequate fit will have an RMR of .05 or less, with 0 indicating a perfect fit, (Hooper et al, 2008).

The Goodness of Fit Index, (GFI), was created by Jöreskog & Sörbom as an alternative to the Chi-Square test ($X^2$). Another absolute fit measure, it is generally
accepted that values of .9 or greater indicate well-fitting models and is one of the most popular and well-used measure, (Hooper et al. 2008).

The Comparative Fit Index, (CFI), is a revised form of the Normed Fit Index, (NFI), both of which are incremental fit indices, and both of which compare the $X^2$ value of the model to the $X^2$ of the null/independence model. Values closer to 1.0 indicate an excellent fit, with a cut-off of 0.9 indicating a good fit, (Hooper et al. 2008).

The Tucker-Lewis Index, (TLI), is also known as the Bentler-Bonett Normed Fit Index, (NNFI). Values above .90 are indicative of a good fit, (Gill & Hodgkinson, 2007, pp. 747-8).

3.11.5 Study 5 – Predictive Validity

Predictive Validity describes the extent to which a score on a scale or test predicts performance on some other criterion related measure, (Messick, 1995). As the RAF is a meritocracy, whereby leaders are promoted on performance, it was hoped to be able to identify whether Authentic Leadership scores increased by rank, even though there is nothing in the literature surrounding Authentic Leadership to suggest that they might. However, the sample sizes by rank were too small for this analysis to be completed meaningfully. This is considered a limitation of the research, and Predictive Validity studies are suggested as part of the future research that is required into the field of Authentic Leadership.
3.11.6 Study 6 – Convergent/Concurrent Validity

Convergent validity refers to the degree to which a measure is correlated with another measure that it is theoretically predicted to correlate with. Data on the two measures may not be collected at the same time and two different constructs may be measured. Convergent validity with any other related, but not conceptually similar instruments, was not explored within this research study. This is considered a limitation of the study and forms part of the suggestions for future research into the field of Authentic Leadership.

Concurrent validity is a measure of how well a test instrument correlates with another, well-established test instrument which measures the same construct. Ideally, participants complete both measures at the same time and under the same experimental conditions. Within this study, the hypothesised model of Authentic Leadership was compared to Walumbwa et al.’s 2008 model which is well-established within the literature. Walumbwa et al.’s (2008) questionnaire comprised 16 item statements against a 4-factor model, however, the factor conceptualisations were not identical, with only the first factor, Leader Self-Awareness, being consistent across both models. These are detailed in Fig. 27.
Walumbwa et al.’s questionnaire was completed by RAF Participants alongside the 100 item bank of statements used within the validation study and was embedded within the questionnaire as a whole with item statements randomly inserted to mitigate against bias, (Gill & Hodgkinson, 2007). The results of the concurrent validity study are reported by factor correlations as well as for the scales in their entirety.

3.11.7 Study 7 – Divergent/Discriminant Validity

Discriminant validity, also known as Divergent validity, tests that constructs that should have no relationship do, in fact, not have any relationship and are unrelated, (Campbell & Fiske, 1959). No discriminant validity tests were conducted within this research study which is considered a limitation of the research and forms part of the suggestions for future research into the field of Authentic Leadership.
3.12 Conclusion

This chapter described the research classifications of the research study, its underpinning research philosophies, the research design, the methodological approach, participants and the population samples, the ethical considerations of the study, the specific RAF requirements for collaborative participation and the detailed methodologies and theoretical background to each of the specific studies which were undertaken. The following chapter describes the results of each of the specific studies and the outcomes of the research.
Chapter 4 – Results

4.1 Introduction

This chapter describes the results achieved by each of the research studies that were conducted in the pursuit of understanding the construct and operationalisation of Authentic Leadership as it is practiced by real leaders within the UK. The results are described factually within this chapter and are discussed in depth in Chapter 5.

4.2 Study 1 – The Pilot Study: Item Generation, Content and Construct Validity

As detailed in Chapter 3, sections 3.6 and 3.11.1, the proposed theoretical 4 Factor Model of Authentic Leadership, as described in Chapter 2, and which is included in visual format for your convenience here, the 100 item statements (25 per factor) were administered to 140 UK business leaders in a self-report format, via the on-line system, Survey Monkey.

Fig. 16: The Proposed 4 Factor Model of Authentic Leadership
The hypothesised 4 factor model was not supported by the research results and subsequent data analysis via SPSS. Instead, using Principal Component Analysis (PCA), a form of multivariate analysis, with an Oblimin rotation, which assumes that any factors will be related in some way, a 3-factor model of Authentic Leadership comprising Self-Awareness, Self-Regulation and Ethics emerged, (Fig. 28), with a total scale Cronbach’s Alpha co-efficient of .76 which is above the .70 acceptable cut-off suggested by Kline, (1986). Inter-scale correlations are shown in Fig. 29. A Varimax rotation was also completed, which also resulted in an identical, 3-factor model emerging, (Fig. 30). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the 12 items was .80, well above the .5 suggested as adequate for a satisfactory factor analysis to be conducted, (Field, 2009). Bartlett’s test of sphericity showed $p < 0.000$ indicating that the sample intercorrelation matrix did not come from a population in which the intercorrelation matrix is an identity matrix and therefore the population sample is factorable.

**Fig. 28: Principal Component Analysis, Pilot Study, Oblimin Rotation**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>.407</td>
<td>-.604</td>
<td>.273</td>
</tr>
<tr>
<td>11</td>
<td>.529</td>
<td>-.090</td>
<td>-.477</td>
</tr>
<tr>
<td>22</td>
<td>.472</td>
<td>-.222</td>
<td>-.125</td>
</tr>
<tr>
<td>23</td>
<td>.396</td>
<td>.578</td>
<td>.122</td>
</tr>
<tr>
<td>25</td>
<td>.644</td>
<td>.146</td>
<td>-.146</td>
</tr>
<tr>
<td>26</td>
<td>.528</td>
<td>.390</td>
<td>.252</td>
</tr>
<tr>
<td>35</td>
<td>.504</td>
<td>.363</td>
<td>-.261</td>
</tr>
<tr>
<td>37</td>
<td>.437</td>
<td>.405</td>
<td>.222</td>
</tr>
<tr>
<td>56</td>
<td>.561</td>
<td>-.085</td>
<td>-.477</td>
</tr>
<tr>
<td>63</td>
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<td>.627</td>
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</tr>
<tr>
<td>98</td>
<td>.594</td>
<td>-.346</td>
<td>-.090</td>
</tr>
</tbody>
</table>
The purpose of the initial pilot study was exploratory regarding suitability for factorial analysis and the final item statements which would emerge in the validation.
Despite the proposed 4-factor model not being supported in its entirety, the result of the pilot study was enough to provide confidence that the bank of 100 item statements would capture the composite elements of Authentic Leadership, therefore the same item bank was used for the validation study with RAF leaders, (see 4.4).

4.3 Study 2 – Face Validity

No adverse or negative comments or feedback were received from any participants or their nominated raters regarding the structure, branding or visual ‘look’ of the materials which comprised the research project, (see Appendices 5 & 6). However, two of the hypothesised factors in the model related to the ethical components of Authentic leadership, which, when combined with the 4 item statements from Walumbwa et al.’s inventory relating to Internalised Moral Perspective, produced an item bank of 54 questions relating to core values, ethics, moral processing and ethical decision-making. As a result of which, a small number of comments (less than five) were received from officers who bemoaned the repetitive nature of the use of the word ‘ethics’ and ‘ethical’ within the questionnaire. Upon clarification, this was not deemed to adversely affect the face validity of the questionnaire, they simply found it slightly irritating as they were after all, extremely busy in the defence of the realm.

As previously described, the UK business sample of 303 leaders used for the CFA were asked whether the final 15 item statements statistically identified in the validation study related to the concept of Authentic Leadership as they understood it.
In total 96 comments were received, although very few of them related to face validity; many related to the participant’s personal experience of leadership or their own beliefs and values regarding what leadership is, (as opposed to Authentic Leadership, which, I would argue, is conceptually different). Many participants simply wished the researcher good luck in their studies. Of the comments which were received, these are a selection, reported verbatim with spelling errors:

“I would like to have seen questions on values modeling and reinforcement and accountability”

“what's missing for me is the aspect of spiritual intelligence”

“No reference to strategy planning and vision”

“I am not sure how the mood swings issues relate to a concept of Authentic Leadership”

“The questions are spot on, the choice of answer seemed less so. Rather than agree with some I would have answered that I do that Usually, Sometimes....” (In fact, the Likert scale included a ‘Sometimes Agree’ option).

“I feel everyone should take responsibilty for their own leadership ethics and style - so had some dificulty answering the question relating to being responsible for others”

“Not sure this is a wel-designed questionnaire. good questionnaires should vary what the answers will be so you disagree” (The Likert scale included two options to disagree with a Disagree and Strongly Disagree option. Data analysis showed that these options were used by some respondents).

“They cut to the core of good leadership, well done”

“Very much about Authentic Leadership as I understand it”

“I found that the questions were behaviours I aspire to and so they were easy to answer”
4.4 Study 3 – The Validation Study: Content and Construct Validity, Principal Component Analysis, (PCA), and Reliability

Using Principal Component Analysis, with both an oblimin rotation and a varimax rotation, a three factor model of Authentic Leadership emerged, identical to that of the pilot study, comprising:

- Self-Awareness
- Self-Regulation
- Ethics

This factor structure is shown in Fig. 31. Each scale comprised 5 item statements, which are detailed in Table 1.

Fig. 31: Research Result: The 3-Factor Model of Authentic Leadership
A Scree Plot Diagram showing the factors based on Eigenvalues greater than 1 is shown in Fig. 32.

Using Eigenvalues, Self-Awareness was the strongest factor, accounting for 30.103% of the total variance within the factor, Ethics accounted for 12.240% of the variance, with Self-Regulation accounting for 8.173% of the variance, making a total variance of 50.517%.

These figures and the extraction sums of their squared loadings, which is the same as each Eigenvalues’ Total, are shown in Fig. 33.

**Fig. 32: Scree Plot: PCA Sample 2 – RAF Officers**
The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the 15 items was .863, well above the .5 suggested as adequate for a satisfactory factor analysis to be conducted, (Field, 2009). Bartlett’s test of sphericity showed p < 0.001 indicating that the sample intercorrelation matrix did not come from a population in which the intercorrelation matrix is an identity matrix and therefore the population sample is factorable.

A multivariate analysis, in this case a Principal Component Analysis (PCA) using a varimax rotation, which assumes that the factors are not hypothetically correlated, is shown in Fig. 34. The results indicate that each of the items within each of the 3 factors load cleanly onto that one factor, suggesting the independence of the items and the factor scales where a figure of .3 and above is considered adequate for a complex psychological construct, (Nunnally, 1978; Kline, 1979; Field, 2009). A PCA
using a direct oblimin rotation, which assumes that the three factors are hypothetically related, showed an identical factor structure, again with all of the items loading cleanly on to one of the three factors. This is shown in Fig. 35. In both PCAs all of the items loaded positively onto their factor scales.

Each factor comprised a 5-item scale. ‘Balanced’ scales, i.e. equal numbers of items, of between 3 and 7 items, are considered ideal in terms of final item scale development, (Kline, 1986).

**Fig. 34: Principal Component Analysis using a Varimax Rotation**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
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<td>.176</td>
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<td>.639</td>
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</table>

Varimax rotation with Kaiser normalisation. Rotation converged in 5 iterations.
Fig. 35: Principal Component Analysis using an Oblimin Rotation

Factor means, variances, standard deviations and inter-scale correlations using PCA with an oblimin rotation are shown in Fig. 36.

Fig. 36: Means, Variances, Standard Deviations & Inter-Scale Correlations

Scale reliabilities, measured by the co-efficient alpha (Chronbach), is shown in bold in the leading diagonal. Scale inter-correlations are shown in RED.
Self-Awareness achieved a mean average of 16.971 with a variance of 20.398 and a standard deviation of 4.517. The Cronbach’s Alpha co-efficient for Self-Awareness, used as a measure of internal reliability, was .755. The second factor, Self-Regulation achieved a mean average score of 19.773 with a variance of 9.706 and a standard deviation of 3.115 and a Cronbach’s Alpha co-efficient of .744. The third identified factor, Ethics, achieved a mean average of 18.039 with a variance of 18.170 and a standard deviation of 4.262 and a Cronbach’s Alpha co-efficient of .696.

The overall Cronbach’s Alpha co-efficient of all three factors was .831 which is considered very good for a psychological construct as complex as Leadership, (Nunnally, 1978; Kline, 1979, 1986; Field, 2009; Coolican, 2009). (Fig. 36).

At a factor level, Self-Awareness correlated with Self-Regulation at .204 and with Ethics at .363 while Self-Regulation and Ethics correlated at .246. These figures suggest that whilst there is a degree of correlation between the identified factors, they are, in fact, statistically independent of each other. The data also suggests that there is a greater correlation between Self-Awareness and Ethics, than there is between either Self-Awareness and Self-Regulation, or Self-Regulation and Ethics, (Fig. 36).

The descriptive statistics by item for the factor of Self-Awareness are shown in Fig. 37, with the inter-item correlation data for Self-Awareness detailed in Fig. 38. The descriptive statistics by item for the factor of Self-Regulation are shown in Fig. 39, with inter-item correlation data for Self-Regulation detailed in Fig. 40. Fig. 41 details the
descriptive statistics by item statement for Ethics, with the inter-item correlational data shown in Fig. 42.

Within each scale, all of the items correlated with each other at the p<0.01 level using a Pearson Correlation and two-tailed level of significance, where a p<0.05 level of significance is often deemed adequate within a complex psychometric construct, (Nunnally, 1978; Kline, 1979, 1986; Field, 2009). These results, and the implications of them, are discussed in more depth in Chapter 5.

**Fig. 37: Descriptive Statistics for Factor 1: Self-Awareness**

<table>
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<tr>
<th>Item #</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
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<tr>
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</tr>
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<td>#7</td>
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<td>#12</td>
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<td>1.270</td>
</tr>
<tr>
<td>#15</td>
<td>2.995</td>
<td>1.508</td>
</tr>
</tbody>
</table>

N = 380
Fig. 38: Inter-Item Correlations for Factor 1: Self-Awareness

Inter-item correlations for Factor 1: Self-Awareness

<table>
<thead>
<tr>
<th>Item #</th>
<th>#1</th>
<th>#4</th>
<th>#7</th>
<th>#12</th>
<th>#15</th>
<th>N = 380</th>
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<td>1.00</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>#4</td>
<td>.354**</td>
<td>1.00</td>
<td></td>
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</tr>
<tr>
<td>#7</td>
<td>.419**</td>
<td>.404**</td>
<td>1.00</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Using Pearson’s Correlation, ** indicates that the correlation is significant at the p < 0.01 level (2-tailed)

Fig. 39: Descriptive Statistics for Factor 2: Self-Regulation

Descriptive Statistics for Factor 2: Self-Regulation

<table>
<thead>
<tr>
<th>Item #</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td># 6</td>
<td>4.280</td>
<td>.698</td>
</tr>
<tr>
<td># 8</td>
<td>3.610</td>
<td>1.000</td>
</tr>
<tr>
<td># 9</td>
<td>4.132</td>
<td>.820</td>
</tr>
<tr>
<td># 10</td>
<td>3.902</td>
<td>.870</td>
</tr>
<tr>
<td># 14</td>
<td>3.871</td>
<td>.893</td>
</tr>
</tbody>
</table>

N = 380
Fig. 40: Inter-Item Correlations for Factor 2: Self-Regulation

Inter-item correlations for Factor 2: Self-Regulation

<table>
<thead>
<tr>
<th>Item #</th>
<th># 6</th>
<th># 8</th>
<th># 9</th>
<th># 10</th>
<th># 14</th>
</tr>
</thead>
<tbody>
<tr>
<td># 6</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td>N = 380</td>
</tr>
<tr>
<td># 8</td>
<td>.351**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># 9</td>
<td>.309**</td>
<td>.371**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 10</td>
<td>.431**</td>
<td>.283**</td>
<td>.510**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td># 14</td>
<td>.283**</td>
<td>.257**</td>
<td>.244**</td>
<td>.315**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Using Pearson's Correlation, ** indicates that the correlation is significant at the p < 0.01 level (2-tailed)

Fig. 41: Descriptive Statistics for Factor 3: Ethics

Descriptive Statistics for Factor 3: Ethics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2</td>
<td>3.631</td>
<td>1.300</td>
</tr>
<tr>
<td># 3</td>
<td>3.871</td>
<td>1.062</td>
</tr>
<tr>
<td># 5</td>
<td>4.100</td>
<td>1.000</td>
</tr>
<tr>
<td># 11</td>
<td>3.178</td>
<td>1.390</td>
</tr>
<tr>
<td># 13</td>
<td>3.260</td>
<td>1.544</td>
</tr>
</tbody>
</table>

N = 380
Fig. 42: Inter-Item Correlations for Factor 3: Ethics

<table>
<thead>
<tr>
<th>Item #</th>
<th># 2</th>
<th># 3</th>
<th># 5</th>
<th># 11</th>
<th># 13</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># 3</td>
<td>.373**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># 5</td>
<td>.281**</td>
<td>.234**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 11</td>
<td>.400**</td>
<td>.279**</td>
<td>.190**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td># 13</td>
<td>.319**</td>
<td>.300**</td>
<td>.283**</td>
<td>.310**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

N = 380. Using Pearson’s Correlation, ** indicates that the correlation is significant at the p < 0.01 level (2-tailed).

Inter-item correlations between Factors 1 and 2, are shown in Fig. 43.

Fig. 43: Inter-item Correlations Between Factors 1 and 2: Self-Awareness and Self-Regulation

<table>
<thead>
<tr>
<th>Item #</th>
<th>SR # 6</th>
<th>SR # 8</th>
<th>SR # 9</th>
<th>SR # 10</th>
<th>SR # 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA # 1</td>
<td>.213**</td>
<td>.163**</td>
<td>.292**</td>
<td>.362**</td>
<td>.236**</td>
</tr>
<tr>
<td>SA # 4</td>
<td>.167**</td>
<td>---</td>
<td>.209**</td>
<td>.270**</td>
<td>.185**</td>
</tr>
<tr>
<td>SA # 7</td>
<td>.232**</td>
<td>.180**</td>
<td>.359**</td>
<td>.349**</td>
<td>.191**</td>
</tr>
<tr>
<td>SA # 12</td>
<td>.216**</td>
<td>---</td>
<td>.228**</td>
<td>.244**</td>
<td>.110*</td>
</tr>
<tr>
<td>SA # 15</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

N = 380. Using Pearson’s Correlation, ** indicates that the correlation is significant at the p < 0.01 level (2-tailed) and * at the p < 0.05 level (2-tailed).
Inter-item correlations between Factors 1 and 3, are shown in Fig. 44.

**Fig. 44: Inter-item Correlations Between Factors 1 & 3: Self-Awareness and Ethics**

![Image of Table]

Inter-item correlations for Factors 1 & 3
Self-Awareness and Ethics

<table>
<thead>
<tr>
<th>Item #</th>
<th>E # 2</th>
<th>E # 3</th>
<th>E # 5</th>
<th>E # 11</th>
<th>E # 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA # 1</td>
<td>.252**</td>
<td>.132**</td>
<td>.171**</td>
<td>.146**</td>
<td>.260**</td>
</tr>
<tr>
<td>SA # 4</td>
<td>.296**</td>
<td>.280**</td>
<td>.156**</td>
<td>.212**</td>
<td>.255**</td>
</tr>
<tr>
<td>SA # 7</td>
<td>.265**</td>
<td>.250**</td>
<td>.136**</td>
<td>.264**</td>
<td>.192**</td>
</tr>
<tr>
<td>SA # 12</td>
<td>.338**</td>
<td>.310**</td>
<td>.217**</td>
<td>.257**</td>
<td>.285**</td>
</tr>
<tr>
<td>SA # 15</td>
<td>.287**</td>
<td>.294**</td>
<td>.137**</td>
<td>.343**</td>
<td>.240**</td>
</tr>
</tbody>
</table>

N = 380. Using Pearson’s Correlation, ** indicates that the correlation is significant at the p < 0.01 level (2-tailed) and * at the p < 0.05 level (2-tailed)

Inter-item correlations between Factors 2 and 3 are shown in Fig. 45.

**Fig. 45: Inter-item Correlations Between Factors 2 & 3: Self-Regulation and Ethics**

![Image of Table]

Inter-item correlations for Factors 2 & 3
Self-Regulation and Ethics

<table>
<thead>
<tr>
<th>Item #</th>
<th>E # 2</th>
<th>E # 3</th>
<th>E # 5</th>
<th>E # 11</th>
<th>E # 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR # 6</td>
<td>.251**</td>
<td>.174**</td>
<td>.246**</td>
<td>.141**</td>
<td>.185**</td>
</tr>
<tr>
<td>SR # 8</td>
<td>.247**</td>
<td>.122*</td>
<td>.160**</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SR # 9</td>
<td>.351**</td>
<td>.206**</td>
<td>.250**</td>
<td>.152**</td>
<td>.146**</td>
</tr>
<tr>
<td>SR # 10</td>
<td>.315**</td>
<td>.200**</td>
<td>.263**</td>
<td>.194**</td>
<td>.199**</td>
</tr>
<tr>
<td>SR # 14</td>
<td>.217**</td>
<td>.155**</td>
<td>.233**</td>
<td>.127*</td>
<td>.108*</td>
</tr>
</tbody>
</table>

N = 380. Using Pearson's Correlation, ** indicates that the correlation is significant at the 0.01 level (2-tailed) and * at the 0.05 level (2-tailed)
The item statements by factor are detailed in Table 1.

### Table 1: Item Statements by Factor

<table>
<thead>
<tr>
<th>Item #</th>
<th>Factor 1 – Self-Awareness</th>
<th>As a leader, I .....</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Always put myself “in other people’s shoes” and look at things from their perspective</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Am aware of my own feelings, beliefs and motives</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Use what happens to me as an opportunity to learn more about myself</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Stay in touch with my feelings so I am aware of how they are affecting me</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Am aware of how my moods and actions affect other people</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Factor 2 – Self-Regulation</th>
<th>As a leader, I .....</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Display self-discipline</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Keep my ego in check</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Don’t suffer from mood swings</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Remain approachable even when facing significant challenges</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Consistently act as a role model for others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Factor 3 – Ethics</th>
<th>As a leader, I .....</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Discuss difficult ethical issues with others</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>View ethics as an active choice rather than as a compromise</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Remain ethically steadfast in the face of dissent from others</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Am clear about my core values; those values I am not prepared to negotiate on</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Believe that my role as a leader includes an ethical responsibility to others</td>
<td></td>
</tr>
</tbody>
</table>

#### 4.5 Study 4 – Confirmatory Factor Analysis (CFA)

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .773 for the n=303 population sample of UK business leaders used for the CFA. .773 is well above the .5 suggested as adequate for a satisfactory factor analysis to be conducted, (Field, 2009). Bartlett’s test of sphericity showed p<0.001 indicating that the sample inter-correlation matrix did not come from a population in which the inter-correlation matrix is an identity matrix and therefore the population sample is factorable. The scree plot showing initial Eigenvalues for the population sample is shown in Fig. 46.
Fig. 46: Scree Plot: PCA for the CFA, UK Business Leaders Sample

Using AMOS, the path diagrams for the UK Business Leader Population sample are shown in Figures 47-49 inclusive.
The CFA path diagram of the UK Business Leader sample, showing the results for a 3-factor model which IS co-varied, is shown in Fig. 48.
The CFA path diagram of the UK Business Leader sample, showing the results for a 1-factor model, is shown in Fig. 49.
The Goodness of Fit indices relating to the path diagrams for the UK Business Leader population sample are shown in Figure 50.
The results shown in Fig. 50 where data in bold indicates that the results have met the required cut-offs described in 3.11.4 suggest that the best fitting model of Authentic Leadership is not a 1-factor model, but rather a 3-factor model as suggested by both the initial pilot study and the main study. This is reassuring and can be taken to increase levels of confidence in the model, given that three independent population samples have been used: a business population for the pilot study, serving senior RAF officers for the main study and another, different business population sample for the confirmatory factor analytic study above.

Moreover, the data indicates that the best fitting model is one where the three factors are not independent of each other, but rather, are co-varied as suggested by the oblimin rotational data shown as inter-scale correlations detailed in Fig. 36.
It is disappointing that two goodness-of-fit measures, neither the Tucker-Lewis Index, (TLI), nor the Comparative Fit Index, (CFI), achieved the necessary cut-offs to confirm the model. However, the Goodness-of-fit Index, (GFI), did achieve the ‘magic’ .90 figure and therefore the model can be said to be statistically acceptable. Attention is drawn back to 3.11.4 where some experts have called for the abandonment of goodness-of-fit indices altogether! (Wheaton, 1987; Barrett, 2007).

4.6 Study 5 – Predictive Validity

As described in Chapter 3, (see 3.11.5), no Predictive Validity study was done within this research project.

4.7 Study 6 – Concurrent Validity

Using the RAF population sample of N = 380, the 15 item, 3-factor model of Authentic Leadership which emerged from the research project was correlated with Walumbwa et al.’s well-established 2008 model. Walumbwa et al.’s (2008) instrument comprised 16 item statements against a 4-factor model, however, as previously described, the factor conceptualisations were not identical, with only the first factor, Leader Self-Awareness, being consistent and comparable across both models.

At the scale level, overall, using Pearson’s Product Momentum, the two instruments correlated at .774, which is significant at the p<0.01 level and indicated that overall, nearly 60% of the variance was shared between the two instruments, suggesting that the identified 3-factor model may also be representative of the
concept and construct of Authentic Leadership. Each instrument’s factor scales with their associated number of item statements are shown in Fig. 51. Factor correlations using Pearson’s Product Momentum are detailed in Fig. 52.

**Fig. 51: Comparison of Questionnaire Factor Item Numbers**

<table>
<thead>
<tr>
<th>Comparison of Factor Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Self-Awareness (n = 4)</td>
</tr>
<tr>
<td>Relational Transparency (n = 5)</td>
</tr>
<tr>
<td>Internalised Moral Perspective (n = 4)</td>
</tr>
<tr>
<td>Balanced Processing (n = 3)</td>
</tr>
</tbody>
</table>

**Fig. 52: Concurrent Validity Study**

<table>
<thead>
<tr>
<th>Concurrent Validity Study (N = 380)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walumbwa et al. (2008)</strong></td>
</tr>
<tr>
<td>Leader Self-Awareness</td>
</tr>
<tr>
<td>Relational Transparency</td>
</tr>
<tr>
<td>Balanced Processing</td>
</tr>
<tr>
<td>Internalised Moral Perspective</td>
</tr>
</tbody>
</table>

Pearson Correlation by whole instrument = .774** (59.91% Shared Variance)

** Pearson Correlation is significant at the p < 0.01 Level (2-tailed)
4.8 Study 7 – Divergent/Discriminant Validity

As described in Chapter 3, (see 3.11.7), no Predictive Validity study was done within this research project.

4.9 Study 8 - Comparative Population Sample Means

Research conducted by Atkins & Wood, (2002), suggests that leaders, when self-reporting their own performance, tend to consistently over-estimate it. To control for this bias and mitigate against such rater error, the Validation Study with RAF officers employed a 360\(^\circ\) feedback design, (see 3.11.3). For simplicity and speed of completion, the CFA Study, using UK Business Leaders employed a self-report design. Comparative item, scale and factor means between the two population samples are shown in Figs. 53-57.

**Fig. 53: Comparative Scale Mean Scores by Factor**

<table>
<thead>
<tr>
<th>Item #</th>
<th>RAF Mean</th>
<th>Business Population Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 - SA</td>
<td>3.392</td>
<td>4.209</td>
</tr>
<tr>
<td>Factor 2 – SR</td>
<td>3.959</td>
<td>3.844</td>
</tr>
<tr>
<td>Factor 3 - E</td>
<td>3.608</td>
<td>4.328</td>
</tr>
<tr>
<td>Total Scale Mean</td>
<td>10.959</td>
<td>12.381</td>
</tr>
<tr>
<td>Mean Factor Score</td>
<td>3.653</td>
<td>4.127</td>
</tr>
</tbody>
</table>

N = 380     N = 303
**Fig. 54: Comparative Mean Scores by Item - Factor 1: Self-Awareness**

<table>
<thead>
<tr>
<th>Item #</th>
<th>RAF Mean</th>
<th>Business Population Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1</td>
<td>3.238</td>
<td>3.869</td>
</tr>
<tr>
<td># 4</td>
<td>3.752</td>
<td>4.463</td>
</tr>
<tr>
<td># 7</td>
<td>3.473</td>
<td>4.181</td>
</tr>
<tr>
<td># 12</td>
<td>3.501</td>
<td>4.483</td>
</tr>
<tr>
<td># 15</td>
<td>2.995</td>
<td>4.047</td>
</tr>
</tbody>
</table>

Total Factor Mean: 3.392 (N = 380), 4.209 (N = 303)

**Fig. 55: Comparative Mean Scores by Item - Factor 2: Self-Regulation**

<table>
<thead>
<tr>
<th>Item #</th>
<th>RAF Mean</th>
<th>Business Population Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td># 6</td>
<td>4.280</td>
<td>3.990</td>
</tr>
<tr>
<td># 8</td>
<td>3.610</td>
<td>3.309</td>
</tr>
<tr>
<td># 9</td>
<td>4.132</td>
<td>4.104</td>
</tr>
<tr>
<td># 10</td>
<td>3.902</td>
<td>3.889</td>
</tr>
<tr>
<td># 14</td>
<td>3.871</td>
<td>3.930</td>
</tr>
</tbody>
</table>

Total Factor Mean: 3.959 (N = 380), 3.844 (N = 303)
4.10 Data Collection and Sampling Issues

The Royal Air Force Leadership Centre provided the names and contact details for RAF officer population sample. The officers themselves identified their raters and provided the specific names and contact details of those raters. The contact details provided were sometimes incorrect and the Ministry of Defence RAF internal spam filter prevented emails from the Consulting Tools 360 online system from being received, necessitating the use of personal email addresses.

In addition, whilst it was not an issue within an officer/subordinate dyad, it is estimated that there was a 40% non-completion rate overall between the officer, their superior officer or peer dyads. This was partly due to pressures of work with some officers on active duty in Afghanistan, and partly due to officer’s tours of duty being
limited to a two year period in any one role, making contact with previous subordinates and colleagues sometimes problematic. To maximise the value of the research project from the RAF’s perspective, officers were invited to participate in the research whilst attending officer training at the RAF Leadership Centre at Cranwell, UK, or at the tri-service military training facility at Shrivenham, UK.

Participant numbers attending the officer training courses were slightly smaller than originally predicted by the RAF project sponsor due to budgetary constraints, which again, necessitated a longer period of time being required to collect sufficient data. Originally, one year was predicted to collect sufficient data. In the end, two years were required overall. This was slightly problematic, however due to the part-time nature of this research project, the delay was absorbed into the research schedule with ultimately, no adverse effects.

There were no issues surrounding the recruitment of volunteer participants for either the pilot study or the CFA study. Both population samples were recruited online, with the ease of completion considerably increased as these two studies were self-report studies compared to the 360° multi-source feedback design of the RAF validation study.

Regarding gender, there was approximately a 40:60 ratio split male to female in the pilot study using UK business leaders, an overall 80:20 ratio split male to female in the RAF officer validation study sample, reflecting a general gender bias within the
RAF, although this figure did vary considerably by rank (see Fig. 25), and an approximate 60:40 male to female ratio split in the CFA UK business leader population.

Regarding the mean ages and levels of leadership experience of the three population samples, the mean age of the pilot study sample is not known, although the majority of participants reported having more than 10 year’s leadership experience. As the majority of RAF officers enter the service as officers rather than being promoted up through the ranks, length of service was taken to be the predictor of the number of years’ of leadership experience. The mean age of the RAF officer population sample was 40, with a mean average of 19 years’ experience. The majority of the UK business leaders within the CFA sample reported being over 50 years of age and having more than 20 years of leadership experience.

4.11 Validity, Reliability and Generalizability Issues

“A measuring instrument is valid if it does what it is intended to do”, Nunnally, (1978, p.86). It is now possible, using the item statements included in the output of this research project; the Authentic Leadership 360, (see Appendix 6), to empirically identify and distinguish more Authentic Leaders from less Authentic Leaders as perceived by followers and peers. In this sense, this research has both statistical validity and face validity.

A scale, i.e. the items within a measuring instrument, has reliability and generalizability if the results achieved with one representative sample of a population are repeated with another population sample, (Field, 2009 & Coolican, 2009). As this
has also been successfully achieved within this research study, using both military and business population samples, the reliability can be confirmed as can the likelihood of generalizability to other UK leadership population samples.

Leadership per se is not limited by gender. Neither therefore, in theory, is Authentic Leadership. It was disappointing that the gender split of the RAF population sample was an 80:20 male to female ratio which potentially could limit the generalizability of the research findings. However, nothing in the literature surrounding Authentic Leadership suggests that one gender will be ‘more’ authentic than the other. As the pilot study using a business sample population, with its 60:40 female to male gender split also generated an identical 3-factor model to that of the RAF population sample, and that this was confirmed by the 40:60 male to female gender split of the CFA data, it is suggested that the 3-factor model that emerged from the research is valid and reliable and generalizable across and within genders.

The findings from the concurrent validity study using Walumbwa et al.’s statistically validated measure of the concept and construct of Authentic Leadership further suggest the validity of the findings and outputs of this research project.

The degree to which the research findings of the identified 3-factor model of Self-Awareness, Self-Regulation and Ethics synthesise, simplify and empirically measure the concept and construct of Authentic Leadership is discussed in more depth in Chapter 5.
4.12 Conclusion

This chapter has detailed the results from the 360° research project into the concept and construct of Authentic Leadership as it is operationalized within the United Kingdom within real leadership populations; most specifically within the military in the UK’s Royal Air Force and within UK business. These results and their implications are discussed and explored in more depth in Chapter 5.
Chapter 5 – Discussion, Contribution, Limitations and Conclusions

5.1 Introduction

This chapter begins by reviewing and discussing Authentic Leadership in the light of the research results and research outputs which are then also reviewed and discussed in some depth. It continues with a summary of the strengths and limitations of the research and its original contributions to theory and practice are reiterated. Implications of the research for Authentic Leadership Development are described and suggestions for future research into the field of Authentic Leadership are made before some conclusions are drawn and some final concluding remarks are made.

5.2 Review and Discussion of Authentic Leadership

Despite more than 10 years of research and publications on the subject of Authentic Leadership, there is still no widely accepted definition of it. Luthan’s & Avolio’s (2003) definition remains the most widely quoted, (see p. 42), although it is a definition of the Authentic Leadership development process, rather than a definition of Authentic Leadership per se.

As a result of this research study, its findings and outputs, I offer my own, simplified and condensed definition of Authentic Leadership, consistent with Novicevic et al.’s (2006) conceptualisation, and consistent too with Confucian philosophy described in 2.6, as being those leaders who are psychologically self-aware and philosophically sound.
In what ways then, does the concept and construct of Authentic Leadership go beyond being merely ethical and transformational in Bass’ terms as I suggest in 2.3? Whilst Bass’s (1985) Transformational Leadership model, like that of Authentic Leadership, is pro-social, with shared outcomes including trust, engagement and increased organisational outputs, Transformational Leadership lacks the elements of self-awareness and self-regulation which this research suggests is critical to the Authentic Leadership construct.

One of the critiques of Authentic Leadership is that, beyond stating that the Authentic Leader is more ethical than other leaders, (May et al. 2003; Avolio & Gardner, 2005; Hannah et al. 2005; George & Sims, 2007 and Verbos et al. 2007), the construct is ambiguous regarding specifically what that means, either in theory or in practice. This research has not specifically addressed that issue, other than to highlight it as a weakness of the construct and to offer some philosophical perspectives on how Authentic Leaders might conceptualise ethical decision-making, (see 2.12).

Whilst conducting and writing up this research project, a new theory was developed by the author regarding the 3 factor model, which became renamed, The 3 Pillars of Authentic Leadership, (Fig. 57). Theoretically, if the 3 Pillars of Self-Awareness; Self-Regulation and Ethics are pre-requisites for Authentic Leadership success, and if Authentic Leadership is both a root construct, as suggested my May et al. (2003) & Avolio & Gardner (2005), and if it is also a leadership multiplier, as
suggested by Chan et al. (2005), then could the 3 Pillars be an underpinning construct for all positive forms of leadership?

Whilst much modern leadership failure is perceived to be ethical in nature, (see 1.2), the implication of this new and rather radical hypothesis is that, potentially, any and all failures in modern leadership could be caused by a leader lacking in one or more of the 3 Pillars of Authentic Leadership, and the cognitive, emotional and behavioural traits which sit within them. This hypothesis, whilst it has yet to be fully explored or tested, makes a significant contribution to the field of both theory and practice.

5.3 Discussion of Research Results and Outputs

The clear 3-factor structure identified by both the pilot and validation studies, (see 4.2 & 4.4 respectively), and the identical factor structure by item shown by both the varimax and oblimin rotations, (see Figs. 34 & 35), combined with the strong statistical results of the scale’s alpha co-efficients and the findings of the CFA goodness-of-fit indices, (see 4.5), suggest that the identified model and its scale are psychometrically robust, (Cronbach, 1984; Kline, 1986; Coolican, 2009 & Field, 2009).

The 0.774 Concurrent Validity study result (see 4.7), showing a shared variance of 60% between Walumbwa et al.’s 2008 Authentic Leadership scale and the new scale developed within this research study, suggest that both scales measure the concept and construct of Authentic Leadership. Whilst neither is likely to be a ‘better’ measure than the other, psychometrically, this new instrument, with its ‘balanced’
scales of 5 items each which load very highly and cleanly on to each factor, might be regarded as more psychometrically robust, (Cronbach, 1984; Kline, 1986; Coolican, 2009 & Field, 2009). (See 4.7 and 4.9).

The Cronbach’s Alpha co-efficiencies of all 15 items for the UK Business Leader population sample used for the CFA study was .765 with an N=303, compared to .831 for the RAF Officer sample of N=380, suggesting that the 360°, multi-rater design, yielded greater consistency and higher statistical correlations than the single-rater, self-reported design employed within the CFA study, which is interesting, given that ‘rater error’ is often cited as a reason why 360° mult-rater designs often achieve lower internal consistency scores than single-rater designs, (Taylor, 2007).

Statistical review of the Goodness of Fit indices utilised within the CFA study revealed that overall, the best fit was the tri-factor, co-related model of Authentic Leadership, consistent with the findings of the Validation Study, rather than an alternative single scale model of Authentic Leadership, (see 4.5).

The initial Eigenvalues achieved in both the Validation Study and the CFA Study suggest that Self-Awareness is the most statistically powerful of the 3 factors. The Cronbach’s Alpha coefficients achieved in the Validation Study, (Fig. 33), and the associated statistical co-relations achieved in the CFA Study, suggest that Self-Awareness correlates more highly with Ethics, than it does with Self-Regulation. This has potential implications for Authentic Leadership Development, which are discussed in 5.6.
3.3 Included a discussion regarding the potential problematic of using an objective, positivist methodology to research what is essentially a subjective, values-laden area; that of authentic leadership, which, as a relational leadership style, can be considered to be both embodied and values-laden from the perspective of both the leader themselves and their followers, (Cunliffe, 2009 and Cunliffe & Eriksen, 2011).

The 3 Pillars Model of Authentic Leadership, which represents the co-related, three-factor model which emerged from this research project, may appear to be objective, given that it was determined by rigorous scientific methods from a positivistic, objective, methodological research perspective, to empirically identify the construct and content of the Authentic Leadership paradigm. However, the researcher, taking a critically reflexive approach, (Cunliffe, 2003, 2004 & 2010), recognizes their own subjectivism, that of their research participants and moreover, recognises the socially constructed and historically temporally situated nature of the current reality of the many leadership paradigms within which Authentic Leadership is expressed at this moment in history.

In that sense then, the 3 Pillars Model of Authentic Leadership embraces and incorporates both objectivism and subjectivism, and may even, in time, come to be viewed as what Cunliffe, (2010), might describe as an inter-subjective model of leadership, given that Authentic Leadership is perceived as a predominantly relational leadership style, (Cunliffe, 2009; Hannah et al. 2011 and Cunliffe & Eriksen, 2011).
5.4  **Strengths and Limitations of the Research**

An important strength of this empirical, positivist research is that it used real, currently practicing leaders, rather than a student population, as is so often the case in research as students are more readily available for study, (Lagan, 2007).

Secondly, the research methodology employed a 360° feedback design, rather than a leader self-perception inventory. This is important as leaders have been shown to over-estimate their leadership performance, (Atkins & Wood, 2002). This tendency was borne out within the research study itself and is evident in the per item and per factor mean score results obtained from the self-reporting sample of business leaders used for the CFA study compared to the 360° results from the validation study which comprised RAF officers and their raters, (see Figs. 53-56).

A further strength of this research, from an applied perspective, is its output of the Authentic Leadership 360° Feedback Report which was generated for, and fed back to, every participating RAF officer who contributed to the research. (see Appendix 6). It was included in, and usefully formed a part of, a number of the RAF’s Senior Officer development programmes, (see Appendix 7).

Limitations of the current work provide valuable avenues for future investigation. For example future research would benefit from considering Authentic Leadership and Authentic Leadership Development from a multi-level perspective, (Yammarino et al. 2001, 2008 & Yammarino & Dansereau, 2008).
The research was limited by the gender balance of its RAF leadership population sample, which was 80% male overall, comprising and reflecting the unequal gender balance of senior leadership personnel within the Royal Air Force. It is evident that with the exception of UK business and industry at the very highest levels where only 4% of Executive directorships in the FTSE 350 companies are held by women, (Sealy, 2008), this predominantly male population sample is not representative of the UK leadership profile in general. However, within the study, this gender inequality was mitigated by the population samples of UK business leaders used for the pilot and CFA studies, which had a gender split of approximately 40% and 60% male participants respectively.

It is recognised that this research study lacked a ‘control group’; thereby comparing Authentic Leaders with less Authentic Leaders. Before such research can be done however, primary research into the construct and measurement of Authentic Leaders needs to occur before it is subsequently possible to identify such leaders, (Avolio, 2007 and Avolio & Chan, 2008). This research study contributes to that body of knowledge and makes such future research possible.

The research is also limited in its scope by lacking an RAF population sample significantly large enough by rank to enable a meaningful Predictive Validity study to be completed. It is suggested that this would form part of future research. It is also recognised that as a positivist, empirical study, this research lacked the rich sources of qualitative individual data regarding participants’ and followers’ perceptions of
Authentic Leaders and Authentic Leadership. It is therefore proposed that this also forms part of future research into the field.

5.5 Original Contribution to Theory and Practice

This research has delivered a number of academically significant and pragmatically relevant contributions to the theory and practice of Authentic Leadership as an extensive literature review revealed fragmented and potentially contradictory theoretical perspectives on Authentic Leadership, (Avolio & Gardner, 2005; Gardner et al. 2005a; Avolio, 2007; Gardner et al. 2011).

Firstly, a new 4-factor theoretical model of Authentic Leadership is offered which usefully synthesises the psychological and philosophical elements of leadership and which contributes to the field of Authentic Leadership Development in that it provides a conceptual framework which leaders and aspiring leaders may find valuable.

Secondly, whilst a number of theoretical perspectives exist and the surrounding literature continues to increase, there is a lack of empirical research regarding the construct of Authentic Leadership, particularly in the UK, (Gardner et al. 2011). This research presents a new, empirically derived, 3-factor model of Authentic Leadership, utilising real UK leader population samples, which synthesises and simplifies the complex and fragmented field of Authentic Leadership theory.
Thirdly, the research critiques the concept of Authentic Leadership as it has been presented within both the academic and practitioner communities as lacking a clear conceptual framework regarding the, ‘right thing to do’, within a pro-social leadership context, and adds to the debate surrounding the, ‘which ethics / whose ethics?’, dialogue within the field of Authentic Leadership.

Fourthly, the research resulted in a commercially viable 360° profiling instrument which has been employed, and continues to be employed, by the UK military within the RAF’s senior leadership development curriculum.

Fifthly, the findings of the research are already being presented, cited and used within both the academic and business communities, (see Appendices 1-4 and the Conferences and Presentations listings on p. xi-xii).

Sixthly, the concept of the 3 Pillars of Authentic Leadership and its associated visual schematic, (Fig. 57), was developed to meet a practitioner need for an easy to understand, apply and remember diagram of the new Authentic Leadership model which could usefully be included in practitioner focused articles.

It should be noted that the visual schematic of the 3 Pillars does not include all of the emotional, cognitive and behavioural traits associated with the 3 factors of Authentic Leadership, but rather, is a simplified and condensed selection of them.
By providing a new multi-source feedback metric, this research makes the identification of Authentic Leaders less problematic. And finally, the proposed model will be beneficial to scholars and practitioners alike in providing a framework for Authentic Leadership development research, (see Appendix 11).

5.6 Implications for Authentic Leadership Development, (ALD)

Authentic Leadership Development per se falls outside the scope of this research project. However, the research project does have important implications for the field of Authentic Leadership Development and provides a unique contribution to the field in a numbers of ways: Without empirical research, understanding the construct of Authentic Leadership and its associated cognitive, emotional and behavioural traits is problematic. This understanding is a critical input to the
leadership development process where a specific leadership model is being used, (Avolio & Gardner, 2005).

These new research findings, the 3 Pillars Model of Authentic Leadership and the outputs of the 360° report, all offer significant opportunities for leaders to develop both their self-awareness and their self-understanding, which the research suggests is critical to the development of Authentic leaders. Potentially, these research findings, with the author’s thought leadership speculation regarding the reason for modern leadership failure, may have an implication for all leadership development, and not be limited just to Authentic Leadership Development per se.

As it utilised a 360° feedback design and included feedback from followers, peers and more senior leaders, the model of Authentic Leadership posited by this research is a multi-level one, and as such, could potentially be employed at an organisational level as a blueprint for an ethical, pro-social, authentic organisation, led by Authentic Leaders who are consistent role models.

As an ethical orientation is a critical component within the Authentic Leadership construct, how can we encourage leaders to become more ethical? The statistical data of both the validation study with RAF officers and the goodness of fit measures employed within the CFA seem to suggest that as Self-Awareness and Ethics are correlated, potentially, increasing a leader’s self-awareness and self-understanding could be key. Whilst the relationship is not posited to be a causal one, it is suggested that future research could explore this area in greater depth.
Avolio & Gardner’s (2005) ALD process, (see 2.9, Fig. 11), seems to confuse the ALD model in that it includes, for example, follower self-awareness and follower self-regulation as inputs to, rather than outputs of, the ALD process. Luthan’s & Avolio’s (2003, p.243) model of the Authentic Leadership development process, (see 2.9), focuses on a leader’s optimal self-esteem and psychological well-being, and as such, seems to lack the ethical component to ALD which this research would suggest is so critical. I therefore posit the Authentic Leadership Development model, (Fig. 10), as being a more comprehensive process and a better fit to the research findings detailed in this thesis into the construct and operationalization of Authentic Leadership and therefore to Authentic Leadership Development.

Feedback from the RAF officers who participated in the research project suggest that they found both the process of participation, and their feedback reports, universally, “relevant and useful”, (Appendix 7). Using the 360° questionnaire and report which are some of the outputs of this research project could therefore, potentially, accelerate the Authentic Leadership Development process.

This research then, seems to provide an exception to Scriesheim’s (2003) assertion that leadership research is generally irrelevant for leadership development. The author hopes that this research and its outputs, most specifically, the 3 Pillars Model and the thought leadership hypothesis regarding the reason for modern leadership failure, will make a valuable and useful contribution to organisations in the field of leadership development in general and to the field of Authentic Leadership.
Development in particular, for those individuals and organisations who elect to pursue it.

5.7 Suggestions for Future Research

As previously detailed briefly in 5.4, the limitations of this research study provide opportunities for future research. It is recommended that future research from a positivist, empirical perspective, includes Predictive, Concurrent and Discriminant Validity studies as these were excluded from this research study. It is also recommended that Authentic Leadership is explored using qualitative methodologies as this was a purely quantitative study focused on construct investigation and scale development, which Kline, (1986), suggests is one of the first, and most important steps within the investigation and exploration of any new theoretical concept.

Whilst Authentic Leadership Development has been included and explored from a theoretical perspective within this study, an extensive literature review reveals that Authentic Leadership Development from a classic Grounded Theory perspective has not, to date, been researched. How leaders develop into Authentic Leaders remains unexplored, although by using one of the outputs of this research, the 360⁰ Authentic Leadership Questionnaire, it is now possible to differentiate less Authentic Leaders from more Authentic Leaders as perceived by followers and peers.

Future research studies may also utilise the 360⁰ scale pre and post a developmental intervention as a temporally situated test-retest measure to identify
and quantify the degree of movement along the Authentic Leadership continuum posited by Erickson, (1995), (Fig. 2), and therefore to measure Authentic Leadership development as perceived by followers and peers.

Future Authentic Leadership research might also consider whether male or female leaders are perceived as being more or less authentic from a positivistic, psychometric approach, or whether, from a qualitative, social constructionist perspective, male and female Authentic Leaders are perceived as leading somehow, differently.

Cultural differences in the perception of Authentic Leaders and Authentic Leadership and even in the construct of Authentic Leadership per se, are also potential avenues of fruitful research. As Cronbach himself identifies, “Construct validation is a fluid, creative process ...... no interpretation can be considered the final word, established for all time”, (Cronbach, 1984, p.149). Therefore future researchers may like to continue the study and exploration of the Authentic Leadership construct.

5.8 Conclusions

The extensive literature review of Authentic Leadership conducted at the very beginning of this research study identified fragmented and potentially contradictory theoretical perspectives on Authentic Leadership. The 3 factors and their associated cognitive, emotional and behavioural traits identified by this research study as comprising the operationalized construct of Authentic Leadership within the UK, all existed within the body of literature. However, they were buried, potentially ‘lost’,
certainly in terms of clarity and its necessary supporting empirical evidence. They have now been ‘found’, and therefore a valuable contribution to the body of knowledge surrounding Authentic Leadership has been made.

By identifying a new theory driven model of Authentic Leadership, this research study, utilising real, practicing leaders from both the UK military and UK business, makes a significant original epistemological contribution to the academic field of the study of Authentic Leadership. It also makes a significant contribution to the field of applied leadership and evidence-based practice.

5.9 Concluding Remarks

It is possible, although still by no means certain, that Authentic Leadership is indeed a *root construct* which underpins all positive forms of leadership, (May et al. 2003 & Avolio & Gardner, 2005). In which sense then, and to continue the metaphor, Authentic Leadership provides the roots to a Tree of Leadership, upon which grow the fruits of positive leadership styles.

As a result of this research, and to change the metaphor slightly, I would posit that, rather than a root construct, Authentic Leadership is the umbrella under which other forms of pro-social leadership shelter, thereby providing a canopy under which pro-social leadership styles can grow and flourish.
References:


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Occam, W. (circa. 1323) Summa logicae


Appendix 1

Authentic Leadership: The 21st Century Imperative?
Fiona Beddoes-Jones
Managing Director and Principal Psychologist of The Cognitive Fitness Consultancy
& Author of the new Authentic Leadership 360.

Abstract
Globally, strategic leadership seems to be dominated by greed, competitiveness, testosterone, ego and power, combined with a lack of empathy and compassion. Our politicians, at least those who display a lack of transparency and ethical virtue, clearly cannot be trusted to do the right thing. So we now face such challenges as a world recession, corruption, having enough food on the planet yet still people starve, the constant commercial demand for ever lower costs whilst at the same time consumers demand ever higher quality goods and services, the rape of our planet and an inability to live peacefully and successfully with each other.

Locally, leaders have to achieve more with fewer people and fewer resources. Increasingly, they are suffering from stress, depression or burnout, and whilst some leaders recognise that employees increasingly want to be a part of something meaningful and worthwhile, many leaders feel impotent to provide that purpose, or worse, ‘bad’ leaders feel that vision, purpose and meaning are irrelevant compared to the day-to-day responsibilities of getting the job done.

There is a danger in these stressful times that ‘good’ leadership, by which I mean engaging, pro-social, collaborative, purposeful and compassionate leadership, is under-valued, and as such is being eroded rather than encouraged. ‘Bad’ leadership, by which I mean anti-social, task driven, competitive and bullying leadership, is valued because in the short term at least, it appears to deliver bottom line results.

In 2001 the UK government sponsored a major piece of research into the state of leadership in the UK. The resulting report by the Council for Excellence in Management and Leadership (CEML) suggested that there was a ‘crisis in leadership’ in the UK. Although CEML no longer exists, with corporate ethical malpractice still regularly hitting the media headlines and the recent politicians’ expenses scandal, I cannot but conclude that this crisis remains.

In addition, business leaders face not only global challenges in a time of world recession, but also ‘a perfect storm’ of failure of corporate governance, growing geopolitical uncertainty and environmental degradation, whilst locally leaders have to achieve more with fewer people and fewer resources. Although many leaders recognise that employees increasingly want to be a part of something meaningful and worthwhile, they often feel impotent to provide that purpose. And vision, purpose and meaning are sometimes irrelevant compared to the day-to-day responsibilities of getting the job done and delivering bottom line results.
But “Leadership is not just about results... The obsession with results is a contemporary conceit and is partly responsible for eroding the moral dimension of leadership”.

Employees want to be able to trust their leaders; to be trusted, leaders have to be principled and honest, competent and fair. Research conducted in 2009 by Management Today and the Institute of Leadership and Management found that 31% of non-managers and 28% of managers had no trust or low trust in their management teams.

Perhaps historically, the teaching on MBA courses—with its focus on finance and bottom line results at the expense of creating a meaningful and pro-social purpose—has in part contributed to the current crisis. Research conducted under the guise of a business simulation game by Reeves and Knell suggested that business school graduates are more likely than their non-business school peers to cheat. As they say, “education corrupts; business education corrupts absolutely”. We cannot ignore the argument that the task-driven paradigm of competitiveness and profit with the associated ‘transactional leadership’ that so drove the 80s and 90s have led in part to the current financial crisis and to our disappointment with global and local leaders.

In more recent years, the best business schools have included elements of social responsibility on their MBA programmes. Cynically, I would suggest that commercially, corporate social responsibility programmes were often undertaken as more of a marketing exercise or for tax purposes than being driven by an inherent conviction of the benefits of pro-social values. Moreover, on its own, the inclusion of a social responsibility policy is not enough to meet the evident personal and professional development needs of current and future leaders.

What’s the solution?

We need more self-aware leaders, better quality thinking and a focus on transformative, pro-social, sustainable and collaborative leadership that is people-focused and values-led rather than simply profit driven.

The solution, I believe, is a much greater focus on personal leadership style in terms of a shift towards Authentic Leadership, with its emphasis on self-awareness, self-regulation and pro-social, ethical leadership. These thoughts are echoed by Sandler, and Jeanette Purcell, former CEO of the Association of MBAs, as well as Reeves and Knell, and Wylie. Leaders in the field of MBA provision, such as Cranfield School of Management and Ashridge Business School, are already beginning to include a focus on Authentic Leadership. I wonder how many other MBA providers will have the strategic insight to go further than simply the current shift towards a focus on ethics, to look at what it really means to be authentic as a leader?
"A leader must be true to a core set of values which are clearly communicated. A naïve reading of this point would suggest that all a leader has to do is to be their authentic self. But that’s not enough... Being authentic is not about being the same all the time. The most effective leaders are authentic chameleons. The chameleon always adapts to context but remains a chameleon”.  

So what is Authentic Leadership and is just being yourself enough?  

Your leadership style is intensely personal; no two people will ever lead in exactly the same way. Authentic Leadership links who you are as a person, i.e. your beliefs and values, with how you lead and manage, i.e. your thinking and behaviours.  

"Real leadership starts with the subtle but effective knack of just being yourself”10, suggesting that being authentic is somehow enough. However, just being yourself is not quite as simple as it may at first appear. You cannot be yourself until you know who you are at your core and what has made you the leader and the person that you are today. Many of us spend a lifetime trying to understand who we ‘really’ are and what that means for us in our different personal and professional roles. What should we show and what should we keep hidden? How much of yourself do you feel comfortable sharing with colleagues whilst still maintaining those boundaries that enable you to remain professional?  

So here we have already hit a stumbling block. What is personal and what is private? One of the difficulties that gay and lesbian professionals encounter when they are ‘out’ is that one’s personal sexuality, an otherwise private and professionally irrelevant aspect of one’s life, suddenly becomes new information that influences others’ behaviour. If all leaders were Authentic Leaders; professionally ethical and with the moral courage to stand up for what is right, everyone in every organisation would be treated fairly and equally. Therefore there would be no need for employment, age, disability, gender, race or sexual discrimination legislation.  

I am often asked who I think is a modern authentic leader. The most well-known current leader who displays many of the characteristics of Authentic Leadership, such as transparency, compassion, a focus on ethics and the willingness to apologise when they feel that they have erred, is Barak Obama. For example, when it became evident that Tom Daschel and Nancy Killefer were ethically wanting, he was very quick to let them go from his administration team and his speech at the Tucson memorial service in January 2011 was truly inspirational”. Matthew Taylor, the dynamic Chief Executive of the UK’s Royal Society of Arts (RSA) and the driving force behind its new, pro-social, 21st Century Enlightenment project, is always quick to publicly apologise via his blog. This unlike Dave Hartnett, HM Revenue and Customs Permanent Secretary, whose initial refusal to apologise over the tax calculation fiasco in September 2010 made him look arrogant and out-of-touch with the very tax payers who pay his wages. Doubtless he was just being himself.
So no, simply being yourself is not enough. As a leader, as a role model and as someone who influences all of those around them, you need to be not just yourself, you need to be your best possible self.

Why doesn't this solution work?

Not everyone wants to be an Authentic Leader! Authentic Leadership is an ideal; it’s an ongoing aspirational journey that is constantly challenging and rarely easy. In my experience, if you put your head above the parapet people will either follow you or try to shoot you! “Not everyone can be a leader. Many executives do not have what it takes to develop the skilful authenticity necessary for effective leadership”13. Moreover, not everyone has the capacity to become an Authentic Leader. This is why.

Clinical psychologist Oliver James14, author of Affluenza and The Selfish Capitalist, has stated that some of the most prevalent personality traits seen in leaders today are anti-social personality disorder, obsessive compulsive personality disorder and narcissism. Unfortunately, all three are ‘bad’ leadership styles. Leaders with anti-social personality disorder tend to be very task focused, have few friends and pay scant attention to developing successful relationships. People with obsessive compulsive personality disorder tend to be rule driven and derive great pleasure from working very hard, often becoming workaholic. Leaders with narcissistic personality disorder tend to have grandiose ideas and a sense of entitlement. They are often energetic and charming, however, they are also self-serving and, conspicuously, they lack empathy. All three personality traits engender a task-focused, bullying culture within organisations. These kinds of leaders—being predominantly task focused rather than people focused, and having such a high work ethic, often competitively—do get results but as I said before, these are short-term results rather than sustainable results, and are achieved in spite of the leader rather than because of them.

Anti-social personality disorder, obsessive compulsive personality disorder and narcissism are more about power than they are about good leadership and are the very opposite of the characteristics displayed by Authentic Leaders. However, their prevalence within many of today’s senior leaders does mean that in organisations led by such people, the culture will be such that any Authentic Leaders will be unlikely to have their relationship focused, empathetic, pro-social leadership valued, which will not only limit the results they are able to achieve but may well prohibit them from reaching senior leadership positions at all.

Conclusion

With the focus on trust, transparency and ethics, more than ever before, leaders are having their thoughts and behaviours examined under a microscope. We now face a call to action regarding the immediate need for a new philosophy of leadership. We need an intelligent, compassionate leadership approach that is pro-social, purposeful and transformational; one that creates meaningful dialogue and meaningful relationships within and between organizations.
For themselves, their followers, their organisations, their communities and for society, Authentic Leaders aspire to be their best selves. Do you?

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References


11 Barak Obama speaking at the Tucson Memorial Service at the University of Arizona on 12th January 2011: http://www.youtube.com/watch?v=ugmkzKwvIGE


14 James, O. http://www.selfishcapitalist.com/
Appendix 2

THEORY AND PRACTICE
Fiona Beddoes-Jones, The Cognitive Fitness Consultancy

Authentic leadership: the key to Building trust

Personal integrity in leaders is one of the foundations for building trust. Research with RAF officers has helped to define the behaviours associated with ‘authentic leadership’ – and points to the need for a different emphasis in management and leadership development.

To anyone who cares to look, whether they are HR professionals or not, it’s obvious that there is a crisis in leadership. The Ipsos MORI survey on trust in 2011 showed that only 29 per cent of people believe business leaders can be trusted to tell the truth, while the most recent Deloitte Global Leadership Forecast has found that UK HR practitioners are severely disappointed with the people who lead them. Only 18 per cent report high quality leadership within their organisations, identifying a staggering 39 per cent failure rate of external leadership appointments and a 28 per cent failure rate of internal appointments. Boards and the HR function need to do something different, and to begin to do it now, if they are to address this crisis within their own organisations.

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AUTHENTIC LEADERSHIP IS NOT a new concept, but several factors have contributed to an upsurge of interest. First, there is the global problem of a perceived lack of ethical decision-making from political and business leaders, which has led to a breakdown in trust. This is a serious matter because trust is the primary virtue that followers say that they want in their leaders. Recent CEPD research into trust and why trust matters suggests that, in order to build effective organisations, we need leaders who display personal integrity and humanity, who allow followers to get to know them, and who are fundamentally trustworthy. The CEPD report further suggests that organisations, in the private and public sectors alike, need to redesign their leadership development programs to identify, select and develop this new kind of leader – one who is self-aware, compassionate, honourable, ethical and authentic.

A second, longer-term driver is the essentially western desire for self-fulfilment while being personally authentic as a leader. With Harvard, Cranfield, Ashridge and Henley business schools all offering development programmes in “authentic leadership”, we could be forgiven for thinking that it is the latest in a long list of approaches that promise to be the holy grail of leadership. So, what is “authenticity” and how is it relevant to HR practitioners?

The ABC of authentic leadership is A for authenticity: being true to your values and to yourself, B is for bravery: having the courage to lead and to do the right thing, especially in the face of danger or dissent, and C is for compassion: leading with empathy and a concern for the physical and emotional well-being of others. Authentic leadership links together who you are as a person, your beliefs and values, how you lead and manage, your personality, thinking and behaviours. To be authentic is to be true to your own ethical standards of conduct, to live a life where what you say matches what you do, and importantly, both are consistent with what you believe, your principles and how you feel.

Personal authenticity, however, can be egocentric and self-centred. It can ignore everything to do with other people, including followers, who are obviously crucial to leadership. Being authentic as a leader oneself is therefore not the same as being an authentic leader, which involves much more than simply being true to yourself.

Previously, the only empirical research into authentic leadership has been carried out in the US, using students. They, crucially, lacked any significant leadership experience, thereby limiting its validity and reliability. My research in the UK, undertaken for a PhD thesis, began with an extensive academic and applied literature review into leadership, authenticity and authentic leadership, resulting in...
the development of a new model of authentic leadership (see Chart 1, above). This theoretical model has four factors, linking the cognitive elements of self-awareness with the behavioural elements of self-regulation, and a leader’s ethical thinking (which I call moral virtue) with actual behaviours (moral actions). It therefore links the psychological aspects of leadership with its philosophical ones; a useful distinction that many leadership development initiatives fail to make.

Three pillars of authentic leadership

To test this four-factor model empirically, 150 item statements were generated and reviewed by an expert panel of psychologists, leaders, leadership development consultants and academics. As a result, some items were deleted and others added, resulting in a final item bank of 100 questions: 25 for each factor. These were piloted, in a self-report format, on a business leader population sample of 160 people who were either CEPOD professionals or members of the UK Institute of Directors. In the final study – using a 360-degree feedback design, which mitigates the tendency for leaders to over-estimate their performance and capabilities – 54 senior RAF officers, with a mean average of 19 years’ service, were rated by their superior officers, subordinates and peers, making an RAF research population sample of 380 in total.

In both the pilot business sample and the RAF officer sample, an identical factor structure emerged, suggesting that the model and the 360-degree questionnaire could be generalised across leadership populations. Empirically, three components of authentic leadership – not four – became evident: self-awareness, self-regulation and ethics. It seems that, statistically at least, followers don’t make a distinction between the ethical and moral thinking that drives a leader’s ethical decision-making (their rhetoric) and what they do in practice. In other words, a leader is judged equally by what they say and what they do. Crucially, these must match, or a leader will not be trusted. Qualitative, written feedback from colleagues and subordinates found that followers evaluate a leader on their levels of consistency. Each of the three “pillars” of authentic leadership comprises a number of cognitive, behavioural and emotional elements, which are displayed to a greater or lesser extent by all leaders (see below, and Chart 2, overlay). Leaders who are more authentic display more of these pro-social, appropriate attributes of “good” leadership, more of the time; and have better quality relationships with colleagues and followers than less authentic leaders do. In this sense, authentic leadership is “relational” rather than transactional, transformational or driven by an underlying philosophy of power or control as some other leadership approaches are.

Self-awareness includes an understanding of our own beliefs, values, thinking processes, emotions, boundaries. ——
Three pillars of authentic leadership

- **Self-awareness**: Relationships, Strengths, Weaknesses, Empathy, Influence, Impact
- **Ethics**: Integrity, Honour, Courage, Honesty, Transparency, Fairness
- **Self-regulation**: Discipline, Energy, Flexibility, Emotional control, Patience, Resilience

The association between trust and authentic leadership is important because trustworthiness is the attribute that followers most seek in a leader. Moreover, high levels of trust also correlate with improved employee engagement and well-being, increased levels of creativity and problem solving, reduced employee turnover and greater productivity.

Embedding the behaviours

<table>
<thead>
<tr>
<th>The association between trust and authentic leadership is important because trustworthiness is the attribute that followers most seek in a leader. Moreover, high levels of trust also correlate with improved employee engagement and well-being, increased levels of creativity and problem solving, reduced employee turnover and greater productivity.</th>
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<tbody>
<tr>
<td>SO WHAT MIGHT HR PROFESSIONALS DO TO ENCOURAGE AND SUPPORT THE STRENGTHENING OF AUTHENTIC LEADERSHIP IN THEIR ORGANIZATIONS? HERE ARE SOME SUGGESTIONS:</td>
</tr>
</tbody>
</table>

Vector they work within, authentic leaders have an ethos that is pro-social ( geared to the good of the group as a whole) and people-focused. They have a desire to contribute. They also have the moral courage to speak up for what they believe in and to remain steadfast in the face of dissent or wrongdoing by others, to the extent that they will blow the whistle or leave an organisation that falls short of their high ethical standards.

The three pillars comprise many cognitive, emotional and behavioural elements that, taken together, make each leader authentic in his or her own way. Interestingly, authentic leadership is correlated with a number of positive organisational outcomes, of which trust is the most significant. The association between trust and authentic leadership is important because trustworthiness is the attribute that followers most seek in a leader. Moreover, high levels of trust also correlate with improved employee engagement and well-being, increased levels of creativity and problem solving, reduced employee turnover and greater productivity.
Recruit for collaboration, not competitiveness. Look for leaders with an ethical, pro-social, people-focused perspective, rather than an overly numbers-driven, task-focused, goal achievement orientation. Recruit too for empathy, a willingness to apologise, and a learning orientation. Everything that happens to a leader is an opportunity for them to develop their awareness about themselves and others — which is the fundamental starting point for all three pillars of authentic leadership. Without developing self-awareness and an accurate sense of self, a leader is not able to monitor, regulate and flex their energy, focus and behaviours. Without the self-awareness to understand the implications and impact of their decisions and subsequent actions, their ethical compass will lack a sense of right and wrong and they will blunder through leadership, ultimately failing.

Encourage whistleblowing. Look carefully at those people who have found the courage to risk everything for something they profoundly believe in. Some of them may be exactly the right people to promote.

Develop managers and leaders within a framework and philosophy of authentic leadership and the three pillars approach. When you create an organisational culture consistent with authentic leadership, then respect, trust and all of the positive organisational outcomes associated with trust will follow. This culture will ensure that authentic leadership behaviours are modelled by leaders and managers at all levels, thereby making the often difficult discussions and subsequent decisions about taking the right pro-social and ethical course of action much easier.

Turning specifically to management and leadership development programmes, some key aspects to look at are:

1. Get your philosophy right. Every effective leadership development programme has a clear philosophy that underpins it. This is usually a reflection of the leadership philosophy of the programme sponsor and/or the board. This needs to be clear, transparent, and consistent with organisational objectives. It must be supported by senior management, as it creates your organisational culture, implicitly and explicitly.

2. Build the programme around the three pillars of authentic leadership. Your approach and every activity must relate to one or more of the pillars. An example can be found on my organisation’s website, 3pillarsleadership.co.uk. Include a 360-degree measurement before and after the programme, so that participants can get real feedback from their teams, more senior managers and their colleagues. Suppliers and clients can also be invited to contribute feedback if appropriate.

3. Select the right people. With its pro-social, collaborative orientation, not everyone is capable of becoming an authentic leader. An authentic leadership development is essentially a personal leadership journey, recognise that not everyone will want to invest the time, effort and personal introspection required to become an authentic leader — and if they do, understand that they will become an authentic leader in their own way. This may mean that ultimately, if they feel there is not a meaningful fit, they will decide to leave your organisation — or conversely, you may need to ask them to.

4. Make sure the programme is long enough. Most leadership development programmes last five days or fewer. This is far too short a period to allow for deep thought, self-reflection and the practice of new behaviours that will lead to sustainable change. A programme that lasts a year allows for real, organisation-relevant, project-based, live case studies and the support of a coaching and mentoring programme where leaders become mentors as well as mentees. It will also give participants enough time to develop meaningful relationships with other leaders on the programme who they may work with across the organisation in the future.

5. Build in an ongoing review of the programme results and successes. ‘Tweak the programme as you go along to ensure it always achieves the desired personal, professional and organisational objectives. Making successes public, and celebrating the programme at the end, will support organisational culture and provide evidence of return on investment. Growing leaders from within an organisation is both more effective and less costly than external appointments. It also supports internal relationships and a more authentic organisational culture, so don’t make the programme a one-off, but rather, make it an annual or biannual benchmark of success for your organisation.

CONCLUSION

Why leaders fail

THE THREE Pillars not only provide a route map for the development of authentic leaders, they also identify the three reasons that leaders fail. Historically, leadership failure may have involved a deficit in knowledge or expertise. Modern leadership failures, however, invariably seem to involve either a lack of self/other awareness, a lack of self-regulation/discipline or a moral/ethical deficit. In other words, a leader found wanting in any one of the three pillars of authentic leadership will not achieve their potential and is more likely, ultimately, to fail. Understanding the reasons for leadership failure is as important as understanding the components of leadership success.

This research into authentic leadership provides organisations with a potential blueprint and route map to identify, recruit and develop the leaders they now need to ensure a sustainable and viable future.
Appendix 3

Having the courage to lead

Fiona Beddoes-Jones reveals three reasons why leaders fail and discusses the implications for L&D practitioners

C

courage... from the old French cœur meaning heart

1. The quality of mind and spirit that enables a person to face danger with bravery

2. (Obsolete) The heart as the source of emotion. Compassion, empathy

3. Acting in accordance with one’s beliefs and values in the face of criticism or danger.

Who is a leader?

Newspaper columnist Sebastian Shakespeare recently wrote that, with politicians and leading sportsmen regularly being found ethically wanting and morally lame, if they are the best that society has to offer, we don’t need role models any more. I disagree.

With public figures and celebrities so often showing us how not to lead our lives, perhaps we need great role models more than ever? Surely it’s the responsibility of our business leaders to engage and inspire people and to lead in ways that are prosocial, ethical and transparent? After all, an organisation’s future leaders are mostly likely to be found within the ranks of its employees, and who are they most likely to emulate in terms of their own leadership style if not those who are leading them now?

But who and what is a leader? Many people, interestingly those who are results-orientated and task-focused, think that a leader is the person who has responsibility for the results to be achieved by a team or group of followers; therefore, anyone without at least one follower cannot, by definition, be a leader. Other people, myself included, think that leadership, although it certainly encompasses achieving results via legitimate power, as defined by French and Raven, also includes the personal, referent power that leaders have over others, regardless of whether they are ‘officially’ our leaders or managers.

The Twitter phenomenon is a good metaphor for this: we choose to follow those people we consider to be role models or those who have something interesting or useful to say to us. If we subsequently decide that they don’t, or they let us down as role models, we simply stop following them.

What do followers really want?

So, as followers, either legitimate ones or referent ones, what do we want from our leaders? In an age where senior leaders get paid to set strategic goals, influence operational objective-setting and create the conditions within an organisation for achieving them, it can be easy for them to misunderstand what their followers really want and need from them.

In 2009, a Gallup research team asked more than 10,000 followers what they wanted from their leaders. The answers will not surprise you if you are a follower, but may have escaped your attention if you are a leader tied up in the meetings and activities that constitute your normal working day.

The four things that followers want from their leaders are not task-focused or results-driven. They are neither operational nor strategic and they say →

Driven by passion and purpose, authentic leaders combine personal courage with ethical decision-making

www.trainingjournal.com September 2011 TJ
Self-awareness requires reflexivity in the moment and reflection after the moment has passed

less about what a leader does than who he is in terms of his personal characteristics and values.

The first thing followers want most from their leaders is to be able to trust them; to believe that what they say is true. The second thing is for a leader to be compassionate; to have empathy and to care about their well-being. Leaders would be well advised to remember the saying that ‘people don’t care how much you know, until they know how much you care’. Thirdly, followers want stability, which is something that many leaders either overlook or simply don’t seem to realise in their relentless drive for change, performance improvements and financial savings. Finally, followers want to feel hopeful about the future, something that is impossible without trust being present.

So what kind of leader engenders trust, compassion, stability and hope? What kind of leader is going to show the best of pro-social, sustainable and values-led leadership? What kind of leader isn’t going to be so competitive that they believe that the end justifies the means, be so blinkered by greed that they are prepared to put profit before people or become embroiled in a debacle that shows a lack of ethical judgment and personal integrity?

I have come to believe that the answer is a leader who, in Bass’ terms, is authentically transformational; and who, in Jim Collins’ terms, is a level five leader. A leader who embodies the very best of leadership and who, more than any other, has the courage to lead, where courage is embodied in both its modern usage and its original French derivation. These leaders are the new authentic leaders.

Driven by passion and purpose, authentic leaders combine personal courage with ethical decision-making to deliver pro-social, sustainable and meaningful results.

What is authentic leadership and why do leaders fail?

But what actually is authentic leadership? It means much more than simply ‘being genuine’ or ‘true to yourself’. After all, you could argue that all leaders are being true to themselves and that any leadership style is ‘authentic’, despite its good or bad qualities.

New research that I have conducted with senior RAF officers into authentic leadership within the military has revealed that there are three statistically-significant dimensions that form the pillars of authentic leadership. Moreover, if you pause for a moment to examine the reasons why the leaders that you know are not successful or actually fail, in every case you will find that they are lacking in one or more of these pillars of leadership.

The first pillar is self-awareness: knowing your real strengths and weaknesses, understanding how other people perceive you, being acutely aware of how your thoughts and emotions influence your language and behaviours and, therefore, the impact and influence that you have on others. It is the ability to articulate your core beliefs and values, and understand your personal boundaries and emotional and intellectual drivers. In short, it is knowing who you are and what you value, thereby building a secure sense of self that provides an anchor for your decisions and actions on your path through life.

But self-awareness requires reflexivity in the moment and reflection after the moment has passed. As an executive coach and psychologist, I encounter many leaders who lack even a basic level of self-awareness; they fail to understand themselves and, worse, they fail to understand those people they are meant to lead and manage.

Research conducted by my colleagues at The Cognitive Fitness Consultancy, using Thinking Styles, has identified that, within the workplace, there are three kinds of manager/leader. Sitting on a continuum, at one end there is the task-focused person. To him, nothing is more important than goals, targets and the results that are achieved. People are purely a disposable resource in the pursuit of the right results. Often highly competitive, driven and cold, he is rarely well-liked and relies on coercion, reward or legitimate power to get things done.

At the opposite end of the scale there is the people-focused person. For him, people are paramount. Tasks and results may become a casualty of his concern for the well-being of others. Frequently taking an almost parental level of responsibility for their teams, these people are very well liked but may not be respected as others frequently take advantage of their good nature and focus on others.

The vast majority of managers and leaders sit somewhere in the middle and, although they may
have a natural preference, are able to maintain an appropriate balance to get the job done through the concerted efforts of others. Knowing where you sit on this continuum and the implications and consequences that this has for you and for the people you work with is one of the fundamental building blocks of self-awareness that many leaders simply fail to grasp.

Self-regulation is the second pillar of authentic leadership and is closely connected with how well you know and understand yourself. It concerns self-management; your focus; your self-discipline; your ability to be actively and deliberately in control of your thoughts, emotions and behaviours; your levels of tolerance and patience; how you manage your energy and your physical, mental and emotional resilience.

Physical and emotional courage both sit within the pillar of self-regulation and perhaps unsurprisingly, due to the high levels of self-discipline and courage required by our military leaders, it was here that RAF officers scored most highly in the 360° feedback ratings from their colleagues and peers.

The third pillar is ethics. When conducting my research, I divided the ethical dimension into two: ethical virtue and ethical action. I wanted to find out, from a follower’s perspective regarding ethics, whether there is a difference between what a leader says and what he does. I used two samples: a business sample and the RAF sample. The results were the same in both cases. Followers expect consistency and congruence from their leaders. They expect a leader to walk his talk and will cease to trust him if his words and actions don’t match. More crucially though, despite any rhetoric, followers judge leaders against their actions; what a leader does is far more important than anything that they may say. This is a critical lesson for all leaders to learn, especially those politicians and public servants in the public eye.

Sitting neatly within the ethical pillar of authentic leadership is professional integrity— all ethical decision-making; those core beliefs and values that underpin your personal leadership philosophy; the courage to remain steadfast in the face of ethical dissent or wrongdoing by others; having a pro-social leadership ethos and the desire to serve the wider community. Honesty, openness, trust, transparency; the moral capacity to judge dilemmas from multiple perspectives and be able to take into consideration different stakeholder needs, honour and fairness are all evident here.

With the notable exceptions of a failure of self-regulation such as drink driving or bullying, it is failures within this pillar of leadership that seem to so often hit the media headlines.

These three pillars support, and shelter under, the roof of relationships. The quality of relationships that an authentic leader has, is the healthy relationship that he has with himself as well as those collaborative, mutually supportive and
People vs Task Focus

Task Focus
- Results driven
- Achievement oriented
- Highly competitive
- The results are paramount
- People are expendable

People Focus
- Empathetic
- Compassionate
- Collaborative
- Pro-social
- People's well-being paramount
- People are our greatest resource

nourishing relationships that he has with others, is a critical differentiator between a leader and an authentic leader.

"The strongest predictor of happiness is not money, or recognition through success or fame; it's having meaningful relationships."
Professor June Gruber, Yale University

Authentic leadership: the courage to lead
Leadership isn’t easy. Anyone who thinks that it is has clearly never tried it! But why would a leader need courage? The courage to do what exactly? Some of the things that people on authentic leadership development workshops have said when they have thought about what it means for them to have the courage to lead include:

The courage to do what exactly?
- To do what’s right, regardless of the cost to you
- To develop your own voice and be known for your ethical standpoint
- To take daily steps to develop your self-awareness and yourself
- To ask for honest feedback and to accept it without becoming defensive or self-justifying
- To be vulnerable, to make mistakes, to admit you were wrong, to apologise sincerely and to change
- To be prepared to lose your job rather than compromise your principles

- To be not only your authentic self, but your very "best self".

Some implications for HR and L&D professionals
While task-focused leaders focus on bottom-line results, often at the expense of pro-social and ethical decision-making, the paradox of authentic leadership is that, by taking an ethical approach and engaging the hearts and minds of followers, it actually delivers better and more sustainable results than other leadership approaches. That’s an obvious reason for all leaders to become authentic ones, if only it were that easy.

There is currently a debate raging on the Internet after the News of the World’s phone hacking scandal, which seems to blame HR professionals and suggest that they should somehow police the actions of senior leaders and the board. Quite apart from the courage it requires for an HR or L&D practitioner to stand up to unethical leadership from above when he has a mortgage and/or a pension to consider, surely leaders should take responsibility for their own actions? Is that not what adulthood involves?

My personal belief is that, as HR and L&D professionals, we can advise and support but, ultimately, we should place responsibility for the decisions that are taken fairly and squarely on the shoulders of those people who took them. “Ah,” I hear some of you cry, “it’s not as easy as all that.”

You are quite right, often it isn’t and it is the authentic leader who lays awake at night grappling with every angle of a situation, trying to find a way through that is the least adverse for people’s well-being and, moreover, a course of action that his conscience tells him he can live with.

If you are a trainer or a coach, despite the obvious benefits for well-being and the achievement of
meaningful results, you need to recognise that not everyone wants to become an authentic leader. Leadership style is intensely personal; no two people will ever lead or manage in exactly the same way. That becomes obvious when you take a moment to consider the implications for leadership style of someone’s seat on the task vs. people seesaw. Combine that with their personal leadership philosophy, multiply it by their experience and the organisational culture, and we have some idea of the complexities of leadership style.

If you are fortunate enough to be working with leaders/managers who do want to develop, I have written enough in this article to give you a starting point and a route map.

Authentic leadership development
The ABC of authentic leadership is authenticity (being true to yourself and your values), bravery (having the courage to lead, particularly in the face of danger or dissent) and compassion (leading with empathy and concern for the well-being of others). Authentic leaders combine pro-social, collaborative leadership with integrity and purpose. Authentic leadership therefore links who you are as a person – your beliefs and values – with how you lead and manage – your personality, thinking and behaviour.

The barriers to authentic leadership are all psychological. As authentic leaders look outwards rather than inwards, they are more focused on others than they are on themselves. Anyone who is self-absorbed and inwards-looking will not have the successful, supportive and fulfilling relationships that are a crucial hallmark of authentic leaders.

Self-absorbed leaders, or leaders with low self-awareness, will lack understanding of the negative impact they have on those around them. Highly task-focused leaders will show low levels of empathy and compassion for others and will have limited people skills. Many recognise their weakness and want to become ‘better’ leaders. In which case, provided that it’s used skillfully, feedback from a 360° instrument can be an enlightening and hugely beneficial source of information for leaders who want to become more effective but simply don’t quite know how.

Fear is the final psychological barrier to authentic leadership. It can manifest itself as a need for control, micro-management; an overbearing attention to detail, the constant worry that things will go wrong; a lack of self-confidence, or neuroticism.

Summary
As Bass identified, there are authentic transformational leaders and pseudo transformational leaders: those people who want the positive results that authentic leadership brings but lack the motivation or self-understanding to be either psychologically self-aware or philosophically sound.

Authentic leadership is just one leadership style and is obviously a personal choice. If you want to be not just yourself but your very best self, if you are prepared to invest time and effort in yourself and your relationships with the people around you and if you really feel that you can have the courage to lead, perhaps authentic leadership is for you. As a way of being, rather than just a way of doing, I can wholeheartedly recommend it and I wish you the very best on your journey.

Tips for authentic leadership development

- Decide what kind of a leader you want to be
- Think about your personal leadership philosophy – where do you sit on the task/people seesaw?
- Remember that self-awareness is necessary for self-development
- Allow people to get to know you and what’s important to you
- If you find yourself lacking courage, consider other options – you may find another way
- Courage relates to self-confidence and is like a muscle: the more you use it, the bigger it grows
- Speak with colleagues if you find a particular issue difficult – you will find that you are not alone
- Familiarise yourself with the characteristics of authentic leaders – you will find people all around you who display elements of authentic leadership
- Make an effort to develop meaningful, successful and supportive relationships with colleagues.

References
6. www.cognitivefitness.co.uk
7. http://bbc.in/1z7WWh
http://bit.ly/7Qos

Fiona Beddoes-Jones is the principal psychologist and managing director of The Cognitive Fitness Consultancy. She is a keynote speaker at the Authentic Leadership and Business Ethics conference on 14th September 2011 in London. She can be contacted via www.cognitivefitness.co.uk
Appendix 4

Regretfully, this academic poster is unreadable at this size, although the layout and headers are comprehensible. A pdf copy is freely available to view or download at www.cognitivefitness.co.uk under the Resources page.
Appendix 5

Invitation emails and software instructions to RAF Officer participants for Validation Study

ROYAL AIR FORCE
Generic Education Training Centre
RAF Leadership Centre
Generic Training Team
Air Power Strategy Team

Room XXX, Trenchard Hall
RAF Cranwell
Sleaford, Lincs
NG34 8HB
Tel: 01400 2xxxx / 95751 6xxx
Fax: 01400xxxx219 / 95xxxx219
Email: 22TgGp- xxxxxx
xxxxx@xxxxx.caf.mod.uk

HAWC and ICSC(A) Participants
28 Jan 10

A PERSONAL, CONFIDENTIAL AND INFORMAL 180/360 DEGREE ASSESSMENT OF YOUR LEADERSHIP STYLE

Since Nov 2009, OJAR and SJAR reporting officers have been required\(^1\) to comment upon performance and potential against the RAF Leadership Objectives and Attributes. Even so, formal reports will rarely give the full picture. Have you ever wondered what people really think of you as a leader? Such honest and confidential information from above, alongside and beneath you in the hierarchy, can be powerful in enabling you to improve performance and potential. With little work required on your part, we can help.

The RAF Leadership Centre is, together with a PhD project run by an occupational psychologist, conducting research into the manifestation of ‘Authentic Leadership’ within the RAF. One of the tools in use is a 180/360 degree report on individual leadership styles. Your one-off participation in this would be enormously beneficial to you and us.

What is ‘Authentic Leadership’\(^2\)? The Authentic Leader’s success is underpinned by self-awareness, an evident and consistent ethical stance and the resultant conspicuous trust and loyalty of subordinates. The Authentic Leadership model, while not endorsed as such in Defence, resonates perfectly with the RAF’s Core Values and Standards\(^3\) and Leadership Objectives and Attributes\(^3\). It applies as well to the strategic level as it does to the OF3/4 level. More detail is given at Enclosure 1.

What will happen? You select a number of personnel from whom you think feedback on your leadership style will be enlightening. You may nominate up to 10 raters from each of the following categories: subordinates/peers/superiors. Ideally, they will have worked under/alongside/over you, but at least will have directly observed or experienced your leadership style. To ensure confidentiality, a minimum of 2 raters from each category that you select is required to generate the report.

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\(^1\) JSP 757, Annexes 4E and 8E, Nov 2009.
\(^2\) AP1.
\(^3\) See www.cranwell.r.mil.uk/live/RAF_LEadership_Centre/Index.htm
You will need to ask their consent and provide their civilian internet e-mail address to which questionnaires will be sent by the researcher. As not all of your nominated raters will respond, please provide as many names as you can. Once enough of your raters have responded, the data will be processed immediately and a report sent to you. You will also be contacted by OC RAF Leadership Centre who will offer a face to face or telephone debrief from Grp Capt John Jupp in order to ensure you get maximum benefit.

Confidentiality. Be assured, all information provided by raters and your subsequent personal report is strictly confidential and will be seen only by the psychologist, you and Gp Capt John Jupp. The debrief will be for your benefit only and Gp Capt Jupp is very experienced in this field, able to give expert feedback and advice.

What to do next:

a. Get consent from, or at least warn off, sufficient subordinates, peers and superiors from your current or previous jobs. Err on the side of plenty for a more balanced result and to allow for nil-returns.

b. List their names, civilian internet e-mail address and their position relative to you – subordinate, peer, superior.

c. E-mail list to the researcher, Fiona Beddoes-Jones, fiona.bj@cognitivefitness.co.uk Fiona does the rest. Provide your daytime contact details so a debrief can be arranged.

d. Await the results via Gp Capt John Jupp. Fiona will provide results individually as soon as she has had sufficient responses from each participant’s raters, so ask your raters for a quick turn around. That’s it.

xxxxxxxxx

Wg Cdr
for OC RAF Leadership Centre

Enclosure:

1. 20090326 Authentic Leadership e-book for RAF.doc.

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4 Service firewalls tend to block the questionnaire, so private e-mail addresses are used.
Sample Report

RAF Authentic Leadership Questionnaire 360

7 Jul 2011
Contents

Dimensions of Authentic Leadership
The Scale used by your Rater Groups
Spider Graph by Dimension
Spider Graph by Question
Your Summary Scores by Dimension - Bar Charts
Your Detailed Scores by Rater Type and RAF Mean Scores
Highest Rated / Lowest Rated Behaviours
Perspectives on your Authentic Leadership Style
Dimensions of Authentic Leadership

Self-Awareness

Being aware of, and understanding, one's own thoughts, beliefs, values and feelings, and knowing how these influence our own mental and emotional states, including being aware of how we may deliberately or inadvertently influence others via our moods, words or actions. Highly self-aware leaders have the meta-cognitive capacity to predict their own thinking processes and resultant behaviours and also those of the people they lead and influence.

Self-Regulation

The conscious and deliberate control of our own thoughts, behaviours and emotional states. As well as our emotional discipline however, self-regulation also includes physical discipline. Highly authentic leaders actively manage their physical, emotional and mental well-being, influencing others by being a role model.

Ethical Virtue and Ethical Action

Our principles and integrity as a leader and our internal sense of the ‘right’ thing to do in any situation. Viewing ethics as a conscious choice rather than as a compromise and the belief that our role as a leader includes an ethical responsibility to others and to the wider community. Having the courage to share our ethical beliefs privately and publicly and our moral courage to remain ethically steadfast in the face of challenges or dissent from others.

Relationships

One of the foundations of Authentic Leadership is the strength of the relationships that an Authentic Leader has with those people they influence; which is everyone they come into contact with plus everyone who hears about them or reads something that they’ve written.

Leadership: Influence, Service Ethos, Trust and Development

Those other core areas of Authentic Leadership not statistically measured in the first half of the 360 report: Influence, Service Ethos, Trust and Development.
The Scale used by your Rater Groups

As you may remember, the scale that was used by each of your raters within the Authentic Leadership Questionnaire was:

1 – Strongly Disagree
2 – Disagree
3 – Sometimes Agree
4 – Agree
5 – Strongly Agree
6 – Unable to Comment

Therefore, within your report, the nearer to 5 you have scored, the more highly a rater group has Strongly Agreed that you possess the qualities of Authentic Leadership associated with each specific question or overall dimension.

This report represents ‘a moment in time’ of your personal leadership style. You may find that in a year’s time, should you decide to review your Authentic Leadership style, that your scores will change depending on future experience and the focus you place on your personal and professional development.

A note on ‘gap analysis’.

It is human nature to dismiss what we already know (or think we know), and to focus instead on what more there is to learn. It is also common, from my experience of working with the military, that service personnel tend to dismiss what they are already doing well and only want to focus on what is ‘wrong’ or on what they could be doing ‘better’.

From a multi-perspective approach, it is extremely valuable to review and consider those areas where you have scored ‘poorly’ or where there is a significant difference between your self-perception and that of your raters, particularly if this review and reflection generates a call to action that leads to improvements in relationships, leadership style and overall effectiveness.

However, a word of caution; I would like to remind you to remember to focus on your Authentic Leadership strengths. These are those areas that others will value about your contribution. They are also the areas where you will be a role model to others regarding their own leadership style and where you will therefore wield the most influence.
Spider Graph by Dimension

This page shows your summary scores for the three dimensions of Authentic Leadership, which are: Self-Awareness, Self-Regulation and Ethics.

These scores are the aggregated mean scores from each of your rater groups; the nearer to ‘5’ you have scored, the more a particular rater group Strongly Agrees that you possess the specific qualities associated with each dimension.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td>B</td>
<td>Self-Regulation</td>
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</tbody>
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<tr>
<th>Competency</th>
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<tr>
<td>C</td>
<td>Ethical Virtue and Ethical Action</td>
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</tbody>
</table>
This page shows you your aggregated mean score for each specific question within the three Authentic Leadership dimensions of Self-Awareness, Self-Regulation and Ethics.

The scores shown on this page are generated from the sum of ALL of your scores from the people who have rated your Authentic Leadership style.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Always puts themselves &quot;in other people's shoes&quot; and looks at things from their perspective</td>
<td>3.40</td>
</tr>
<tr>
<td>2 Remains ethically steadfast in the face of dissent from others</td>
<td>4.56</td>
</tr>
<tr>
<td>3 Is clear about their core values; those values they are not prepared to negotiate on</td>
<td>4.20</td>
</tr>
<tr>
<td>4 Is aware of their own feelings, beliefs and motives</td>
<td>4.60</td>
</tr>
<tr>
<td>5 Believes that their role as a leader includes an ethical responsibility to others</td>
<td>4.30</td>
</tr>
<tr>
<td>6 Displays self-discipline</td>
<td>4.30</td>
</tr>
<tr>
<td>7 Is aware of how their moods and actions affect other people</td>
<td>3.33</td>
</tr>
<tr>
<td>8 Doesn't suffer from mood swings</td>
<td>4.50</td>
</tr>
<tr>
<td>9 Remains approachable even when facing significant challenges</td>
<td>4.11</td>
</tr>
<tr>
<td>10 Consistently acts as a role model for others</td>
<td>3.70</td>
</tr>
<tr>
<td>11 Discusses difficult ethical issues with others</td>
<td>3.89</td>
</tr>
<tr>
<td>12 Uses what happens to them as an opportunity to learn more about themselves</td>
<td>4.30</td>
</tr>
<tr>
<td>13 Views ethics as an active choice rather than as a compromise</td>
<td>4.22</td>
</tr>
<tr>
<td>14 Keeps their ego in check</td>
<td>4.40</td>
</tr>
<tr>
<td>15 Stays in touch with their feelings so they are aware of how they are being affected</td>
<td>3.78</td>
</tr>
</tbody>
</table>
Introduction to
Your Summary Scores by Dimension - Bar Charts

The next page shows an aggregated summary score of how you have been rated for each dimension of Authentic Leadership by each rater group.

Your scores are represented by a set of coloured bars with the rater group name identified within the bar.

If you would like to know how you have scored compared to a comparative sample of UK RAF officers, page 8 of this report shows the RAF aggregated mean score of each question.

These are the mean scores achieved by the RAF officers who generously participated in the 2009/2010 PhD research conducted by Fiona Beddoes-Jones in collaboration with GETC at Cranwell, sponsored by Group Captain John Jupp.

Details of the sample population (age range, length of service, rank etc.) can be found in the accompanying Authentic Leadership e-book for RAF officers which you can find on the Resources page of the Cognitive Fitness website.

The accompanying RAF e-book has been written specifically to support the information you will find here in your personal Authentic Leadership Report.

Please go to www.cognitivefitness.co.uk to download a copy.

A vs is the average score and corresponds with the bar length.

N shows the number of respondents who answered the question.

AP means anonymity protection i.e., if fewer than a specified minimum number of people from a particular group have responded, the score is not shown to protect anonymity.

Range Bars show the highest and lowest ratings received for a question or competency from a given group.
Your Summary Scores by Dimension - Bar Charts

Self-Awareness

- Participant: 4.00, N=1
- Subordinate: 3.83, N=6
- Superior: 4.00, N=1
- Peer: 4.00, N=3

Self-Regulation

- Participant: 4.40, N=1
- Subordinate: 4.23, N=6
- Superior: 4.25, N=1
- Peer: 4.08, N=3

Ethical Virtue and Ethical Action

- Participant: 4.60, N=1
- Subordinate: 4.30, N=6
- Superior: 3.33, N=1
- Peer: 4.29, N=3

Avs - Average Score  N - Number of Responses  AP - Anonymity Protected

7 Jul 2011 Sample Report
Your Detailed Scores by Rater Group

Self-Awareness

1. Always puts themselves "in other people's shoes" and looks at things from their perspective

4. Is aware of their own feelings, beliefs and motives

7. Is aware of how their moods and actions affect other people

12. Uses what happens to them as an opportunity to learn more about themselves

16. Stays in touch with their feelings so they are aware of how they are being affected

Avs - Average Score  N - Number of Responses  AP - Anonymity Protected
Your Detailed Scores by Rater Group

Ethical Virtue and Ethical Action

- Participant: 4.60 (1)
- Subordinate: 4.30 (6)
- Superior: 3.33 (1)
- Peer: 4.29 (3)

2. Remains ethically steadfast in the face of dissent from others

- Participant: 5.00 (1)
- Subordinate: 4.67 (6)
- Superior: 3.00 (1)
- Peer: 5.00 (2)

3. Is clear about their core values; those values they are not prepared to negotiate on

- Participant: 5.00 (1)
- Subordinate: 4.33 (6)
- Superior: 3.00 (1)
- Peer: 4.33 (3)

5. Believes that their role as a leader includes an ethical responsibility to others

- Participant: 5.00 (1)
- Subordinate: 4.17 (6)
- Superior: 4.00 (1)
- Peer: 4.67 (3)

11. Discusses difficult ethical issues with others

- Participant: 4.00 (1)
- Subordinate: 4.00 (6)
- Peer: 3.67 (3)

13. Views ethics as an active choice rather than as a compromise

- Participant: 4.00 (1)
- Subordinate: 4.33 (6)
- Peer: 4.00 (3)

Avs - Average Score  N - Number of Responses  AP - Anonymity Protected

7 Jul 2011  Sample Report
Your Authentic Leadership Strengths - All Raters

This page shows you the particular qualities that those people who have rated your Authentic Leadership style feel are your STRENGTHS.

Once again, the score shown is an aggregated mean score generated from the scores of ALL of those people who have completed the Authentic Leadership Questionnaire with you in mind.

The specific qualities detailed here are not only your personal STRENGTHS, they are also quite likely to be those things that your superior officers, colleagues and subordinates MOST VALUE about you.

It is also quite likely that these STRENGTHS of yours, which are clearly recognised and valued by others, will also be reflected in people’s personal comments about your Authentic Leadership style, which you will find in the second half of this report.

<table>
<thead>
<tr>
<th>Score</th>
<th>Behaviour</th>
<th>Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.60</td>
<td>Is aware of their own feelings, beliefs and motives</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td>4.56</td>
<td>Remains ethically steadfast in the face of dissent from others</td>
<td>Ethical Virtue and Ethical Action</td>
</tr>
<tr>
<td>4.50</td>
<td>Doesn’t suffer from mood swings</td>
<td>Self-Regulation</td>
</tr>
<tr>
<td>4.40</td>
<td>Keeps their ego in check</td>
<td>Self-Regulation</td>
</tr>
<tr>
<td>4.30</td>
<td>Uses what happens to them as an opportunity to learn more about themselves</td>
<td>Self-Awareness</td>
</tr>
</tbody>
</table>
Your Authentic Leadership 'Weaknesses' - All Raters

This page shows you the particular qualities that those people who have rated you feel are the LEAST STRONG aspects of your current Authentic Leadership style.

Once again, the score shown is an aggregated mean score generated from the scores of ALL of those people who have completed the Authentic Leadership Questionnaire with you in mind.

Each of your raters has their own perspective; 'leadership through the eyes of the beholder'. Only you, if you are being genuinely honest with yourself, (and if you are self-aware enough), will know the real impact that these weaknesses have for yourself and for those people you influence and lead.

Can you see a pattern in the specific behaviours detailed below? Do you recognise those aspects of yourself? Are there specific areas of your Authentic Leadership style that you may need to consider changing in some way?

As with your strengths, the specific qualities detailed here are also quite likely to be those things that your superior officers, colleagues and subordinates will also mention in their personal comments about your Authentic Leadership style, which you will find in the second half of this report.

<table>
<thead>
<tr>
<th>Score</th>
<th>Behaviour</th>
<th>Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.33</td>
<td>Is aware of how their moods and actions affect other people</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td>3.40</td>
<td>Always puts themselves &quot;in other people's shoes&quot; and looks at things from their perspective</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td>3.70</td>
<td>Consistently acts as a role model for others</td>
<td>Self-Regulation</td>
</tr>
<tr>
<td>3.78</td>
<td>Stays in touch with their feelings so they are aware of how they are being affected</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td>3.89</td>
<td>Discusses difficult ethical issues with others</td>
<td>Ethical Virtue and Ethical Action</td>
</tr>
</tbody>
</table>
Perspectives on your Authentic Leadership Style

Welcome to the second half of your personal Authentic Leadership 360 Report; Multiple perspectives on your Authentic Leadership style. This is organised around two critical factors of Authentic Leadership not directly measured in the first part of the report. These are Successful Relationships and Perspectives on Leadership, where the characteristics of Influence, a Service Ethos, Trust and Development will be explored.

The following 14 pages contain free entry responses to the questions that have been asked. The responses that you will read are included verbatim and have not been edited in any way. If, by any chance, you think that you can identify someone because of their candour, and they have said something that doesn’t sit comfortably with you for whatever reason, please respect their honesty, and reflect on the multiple-perspective nature of both leadership and followership.

Relationships

One of the foundations of Authentic Leadership is the strength of the relationships that a leader has with those people they influence. Which as you know, is everyone they come into contact with, plus everyone who hears about them in some way or reads something that they’ve written. The Authentic Leadership 360 therefore includes an opportunity for those people who are rating you to focus on how successful they think you are at developing long-term, mutually beneficial and supportive relationships.

When it comes to pro-social leadership such as Authentic Leadership, it is a truism that, "People don’t care how much you know until they know how much you care". The development of successful relationships is therefore built upon this bedrock of empathy as much as it is on integrity, trust and performance.

Perspectives on Leadership: Influence, a Service Ethos, Trust and Development

Truly Authentic Leaders; those people who possess all of the characteristics explored in this report, are rare. This may be because Authentic Leadership is an ideal; an ongoing and constant journey which requires a leader to be extra-ordinarily mindful of not only what is going on around them, but also of their place within that 'chaos'. They then need to make some kind of sense of it, both for themselves, and more critically, for others.

An Authentic Leader has their own voice. It's a voice that is recognisable by others. It's a voice that distills the essence of a leader and what they believe in so that others use it to guide and support their own actions and standards of behaviour. Authentic Leaders are pro-social; their leadership has a purpose beyond their own ego and their own advancement. They are driven by a genuine desire to serve others in the wider community.

Authentic Leaders are upbeat. They are positive and optimistic even in difficult or dark times, and they recognise that their mood profoundly influences those around them. They are therefore, always mindful to influence with positive intent.

Authentic Leaders create opportunities for their followers to grow and develop, both personally and professionally. Whilst not encouraging failure, they recognise that sometimes, allowing people to fail in a safe and supportive environment can be a way of supporting critical learning.

Finally, Authentic Leaders trust and are trusted in return. They can be trusted to tell the truth, to act with integrity, to be a role model by the quality of their thinking and their actions. And whilst recognising that people always need support, they trust other people’s endeavours to be "their best selves".
Perspectives on your Authentic Leadership Style

Below are the 7 ‘free entry’ questions which were used within the RAF Authentic Leadership 30° project. They were included in the project and in the 360° feedback report at the suggestion of the researcher and with the agreement of the RAF Project Sponsor, to maximise the value that the RAF as an organisation, and its senior officers, as volunteer participants, received from the collaborative involvement with the research project. Raters responses to these questions are included in the feedback report verbatim.

"I welcome feedback, particularly if it will improve my interactions with others". To what extent is this statement true for this person and do you have any examples that would shed light on their leadership style in this respect?

To what extent does this person listen carefully to different points of view before coming to a conclusion?

Do you feel that this person has a genuine desire to serve others through their leadership? How do they manifest that?

Do you feel that you are generally trusted to do a good job by this person, and do they allow you to fail?

To what extent does this person create opportunities for the people around them to grow and develop?

Please identify one thing that you would like this person to do LESS of and one thing that you would like this person to do MORE of.

If there is anything else that you would like to add, please do so here
Dear Fiona,

LEADERSHIP DEVELOPMENT – 360 REPORTING

The trials that we have conducted between us into 360 degree reporting in the Royal Air Force has been a significant success. First, it has opened the door to many that this form of assessment can be usefully used for personal development within the Service and has shown that such development can be undertaken over the course of a career. The Authentic Leadership tool that you developed for us to use in the trial was also much appreciated by those who were able to use it. The feedback from them was that they universally found the tool useful. Thank you.

It now remains for us to build on that start and see if we can implement a Service wide systematic use of 360 degree reporting tools to better the self-awareness and development of our more senior people. As we have discussed, the major stumbling block to progressing this is our severe lack of resources at the moment and for the foreseeable future but we have not given up hope!

Once again, many thanks for your help in producing a tool for us to trial that has been found relevant and useful by our personnel.

Yours sincerely

xxxxxxxxxxxxx
### Appendix 8

**Sample Item Statements from the Pilot Study**

<table>
<thead>
<tr>
<th>As a leader, I .......</th>
</tr>
</thead>
<tbody>
<tr>
<td>Am aware of my strengths and weaknesses</td>
</tr>
<tr>
<td>Know when it is time to re-evaluate my position on important issues</td>
</tr>
<tr>
<td>Understand how specific actions impact others</td>
</tr>
<tr>
<td>Attempt to understand myself as best as possible</td>
</tr>
<tr>
<td>Am clear about my core values; those values I am not prepared to negotiate on</td>
</tr>
<tr>
<td>Accept myself for who I am</td>
</tr>
<tr>
<td>Use what happens to me as an opportunity to learn more about myself</td>
</tr>
<tr>
<td>Work hard at understanding myself</td>
</tr>
<tr>
<td>Seek feedback to improve my interactions with others</td>
</tr>
<tr>
<td>Recognise when others need help or support</td>
</tr>
<tr>
<td>Am very aware of my strengths and what I’m good at</td>
</tr>
<tr>
<td>Don’t suffer from mood swings</td>
</tr>
<tr>
<td>Think that I can accurately predict other’s opinions of me</td>
</tr>
<tr>
<td>Am aware of how my moods and actions affect other people</td>
</tr>
<tr>
<td>Try to understand what constitutes my true self</td>
</tr>
<tr>
<td>Stay in touch with my feelings in order to know how they are affecting me</td>
</tr>
<tr>
<td>Am conscious of my motives when faced with ethical decisions</td>
</tr>
<tr>
<td>Am aware of my own feelings, beliefs and motives</td>
</tr>
<tr>
<td>View ethics as an active choice rather than as a compromise</td>
</tr>
<tr>
<td>Am guided by core beliefs and values</td>
</tr>
<tr>
<td>Always keep my word</td>
</tr>
<tr>
<td>Don’t change my ethical standpoint on important issues</td>
</tr>
<tr>
<td>Display ethical courage in my dealings with others</td>
</tr>
<tr>
<td>Establish long-term, successful relationships</td>
</tr>
<tr>
<td>Consistently act as a role model for others</td>
</tr>
<tr>
<td>Display self-discipline</td>
</tr>
<tr>
<td>Have the willpower to succeed and overcome obstacles</td>
</tr>
<tr>
<td>Always act on the feedback that I receive</td>
</tr>
<tr>
<td>Maintain my sense of self despite changing circumstances</td>
</tr>
<tr>
<td>Solicit views that challenge my deeply held positions</td>
</tr>
<tr>
<td>Analyze relevant data before coming to a decision</td>
</tr>
<tr>
<td>Remain approachable even when facing significant challenges</td>
</tr>
<tr>
<td>Have my own voice</td>
</tr>
<tr>
<td>Keep my ego in check</td>
</tr>
<tr>
<td>Listen carefully to different points of view before coming to conclusions</td>
</tr>
<tr>
<td>Deliberately control my behaviour</td>
</tr>
<tr>
<td>Actively manage my internal self-talk to remain positive</td>
</tr>
<tr>
<td>Allow others to get to know the ‘real’ me</td>
</tr>
<tr>
<td>Have a genuine desire to serve others through my leadership</td>
</tr>
<tr>
<td>Believe that my role as a leader includes an ethical responsibility to others</td>
</tr>
<tr>
<td>Always put myself “in other people’s shoes” and look at things from their perspective</td>
</tr>
</tbody>
</table>
Appendix 9

Sample Ethical Research Framework

Principles for the use of published Psychological Tests in research
Introduction
In contrast to in vivo assessments in which psychological tests are used to make decisions regarding a test taker (e.g. job offer, diagnosis and treatment of psychological conditions, educational needs), the use of psychological tests in research tends to focus primarily on the collection of data for the development and evaluation of new tests, theories and models. That is, the information gathered from psychological tests used in research tends not to be used as a basis for decisions affecting those test takers participating in research. However, for ethical and scientific reasons, it is still in the interest of researchers to follow principles that have been established for in vivo use of tests.

The purpose here is to outline a set of principles drawn from the standards developed by the British Psychological Society for the competent use of psychological tests.

Purpose
Rather than adopt a punitive approach to achieving this aim through disciplinary guidelines, the principles set out below seek to encourage best practice by outlining those factors that should be considered in the use of psychological tests in research, and by inviting those engaged in the use of tests in research to reflect on the impact that their research may have on their participants, on perception of the research enterprise, on perceptions of the profession and on psychological testing more generally.

Definition of the term 'psychological test'
While the term 'psychological test' tends to be most closely associated with questions contained in a booklet that are scored and interpreted through numerical scoring systems, many forms of assessment may be considered as constituting a psychological test ranging from normative questionnaires (including paper and pencil, online and PC formats) and performance tasks to observational methods of assessment.

The definition that will be used here follows Cronbach (1990) in taking the broader view that 'psychological tests may comprise standardised or reproducible tasks (e.g. questions, stimuli or indeed tasks), standardised or reproducible methods of observation, and standardised or reproducible methods of scoring these tasks and/or observations, which are deemed psychological in providing measures or examinations of a person's abilities, skills, interests, preferences, disposition, attitudes, emotions or well-being'.

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Principles
The following are offered as broad principles for the use of psychological tests in research:

1. The conduct of the research should be in accordance with a written statement of ethical standards as produced by the sponsoring organisation (e.g. university, professional association, research laboratory) and/or by the Society.

2. Clear statements should be provided in the research proposal as to why tests are to be used and why the particular tests chosen for use are appropriate for the research aims. Evidence of the psychometric properties of the tests chosen to be used should be documented and assessed for appropriateness.

3. Tests should only be used in the format provided by the test publisher (e.g. test publishers may provide a research copy of the test or refer the researcher to an online version). Confidentiality, copyright and security of test materials need to be considered at all times (e.g. test should not be photocopied or downloaded from a web site without authorisation).

4. Written procedures should be provided in advance of testing to cover the following:
   4.1. Knowledge and skills required to administer the tests (i.e. who is competent to administer the tests).
   4.2. The administration requirements for the tests (e.g. rooms, equipment).
   4.3. Knowledge and skills required for scoring and interpretation of the tests (i.e. who is competent to score and interpret the tests).
   4.4. Storage and access to test materials and test records (e.g. files or computer records).
   4.5. The time over which test materials and records are to be stored (i.e. for how long and why).
   4.6. Supervision and monitoring of test administration, scoring, interpretation and storage of and access to records (i.e. who has supervisory responsibility for which aspects of the research and the use of the tests).

5. The administration of tests for the purposes of research should abide by the principle of informed consent. That is, participants in research should be told in advance broadly what will be required of them, what will happen to the information collected through the tests and who will have access to this information. In the case of minors, this information should be provided to parents or guardians. It is strongly recommended that written consent to participate in the research study and for use of the scores in subsequent analyses should be obtained either from the participant directly or, in the case of minors, from parents or guardians.
6. Of particular concern to the Society’s Committee on Test Standards (CTS) is the issue of feedback. It is the recommendation of the CTS that, in the case of in vivo assessments leading to a decision regarding a test taker, it is normal practice that written or oral feedback is provided. However, it may be the case that owing to the numbers of participants involved, the developmental nature of the tests being used, or for confidentiality issues inherent in the research design, the provision of feedback may create practical difficulties (e.g. staffing and costs) or conflict with research objectives (e.g. criterion contamination). In such cases, participants taking tests should be told in advance that feedback will not be provided. When feedback is to be provided, then this should be in accordance with the Society’s standards for competence in test use.

Further information
Please see our website www.psychtesting.org.uk or www.bps.org.uk. Also available from The Psychological Testing Centre at the Society’s Leicester address are:
- Code of Good Practice for Psychological Testing.
- The Test User’s Handbook.

Reference

Prepared by the Committee on Test Standards and published by the Professional Practice Board and Research Board
Reviewed October 2005

The British Psychological Society
The Psychological Testing Centre, St Andrews House, 48 Princess Road East, Leicester LE1 7DR.
Telephone 0116 252 9530 Facsimile 0116 227 1314 E-mail enquiry@psychtesting.org.uk
Website www.psychtesting.org.uk
Appendix 10

**Awards: January 2013** Awarded 3rd place in the British Psychological Society (BPS) Division of Occupational Psychology (DOP) Student Excellence Awards for Research.

### Presentations

<table>
<thead>
<tr>
<th>Title</th>
<th>conference/event</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic Leadership</td>
<td>Institute of Leadership Conference</td>
<td>Feb 2013</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>Huddersfield University Business School, presentation to staff &amp; MBA students</td>
<td>Feb 2013</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>Coaching Innovations - NHS Conference</td>
<td>Jan 2013</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>RAF Leadership Seminar for Officers</td>
<td>May 2011 x2</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Aberdeen</td>
<td>April 2011 x2</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Weybridge</td>
<td>Jan 2010</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Guilford</td>
<td>Sept 2010</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Pease Pottage</td>
<td>May 2010</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Humber</td>
<td>April 2010</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>CIPD Branch, Central London</td>
<td>Oct 2009</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>British Academy of Management (BAM) (Round Table Discussion)</td>
<td>2007</td>
</tr>
</tbody>
</table>

### Poster Presentations

<table>
<thead>
<tr>
<th>Title</th>
<th>conference/event</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic Leadership</td>
<td>Northern Leadership Conference</td>
<td>June 2012</td>
</tr>
<tr>
<td>Great Leadership: Turns out it’s not rocket science after all.</td>
<td>British Psychological Society (BPS) Division of Occupational Psychology (DOP) Conference</td>
<td>January 2013</td>
</tr>
</tbody>
</table>
Appendix 11

Practitioner and Peer Feedback

These are some of the comments which have been received by practitioners and academics as a result of either my publications, presentations or my Academic Poster:

“I am grateful to you for sharing your PhD research and your knowledge. One of the strengths of the article is noting that research can be flawed unless the research population is valid. Who better to research than those experienced in the ‘military’ when they are dealing with authentic issues of leadership all the time! Thanks for this great article”. Programme Leader, MA Leadership Coaching, Faculty Education, Health and Sciences, University of Derby, (Beddoes-Jones, 2012)

“Just a brief note to thank you for your excellent article on Leadership which appeared in the August edition of People Management. I am a lecturer in HRM at Dublin City University and I propose to recommend your article to my postgraduate students”, (Beddoes-Jones, 2012)

“Thank you so much for your article. It is a great step forward for leadership development. Would you be happy for me to give out copies of this article on my CIPD Psychology of Leadership programme?” Dr. JP, (Beddoes-Jones, 2012)

“Thank you I have read your article with interest. The principles are useful I have found it useful as a reflection tool for myself. Thank you again for sharing knowledge”. (Beddoes-Jones, 2012)

“Hi, just wanted to send a 'high 5' on the 'Authentic leadership: the key to building trust'. Absolutely excellent, quite probably the best article I have read in the 30+ years I have been receiving this magazine”. AR, (Beddoes-Jones, 2012)

“Good work; feels really positive too for how leadership should really be”, (Academic Poster)