A Field Theory of Leadership

by

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The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Existing leadership theories tend to explain that leaders induce others to follow as a function of one or more of the following:

i)   A specific set of traits possessed by the leader (e.g., charisma);

ii)   Different types of behaviours the leader exhibits depending on the situation (e.g., a focus on tasks or a focus on relationships);

iii)   Specifics relating to the structure and dynamics of the leader-follower relationship (e.g., economic, social, or psychological exchange, or a 'customized' focus on the 'follower').

Leadership is thus seen largely as getting others to do what the leader wants based on what the leader does for them (some kind of exchange mechanism), or on his/her character or style. Whether intended or not, one can argue that these theories are characterized by a somewhat manipulative and self-serving view of leaders and leadership, even when there is a focus as well on 'elevating' those who follow.

We argue that existing theories are based on assumptions and logic that pose significant challenges, and that there is a gap in understanding the essence of the leadership phenomenon, particularly how it emerges in the first place in the perception of observers. We advance an alternate view, drawing in particular on psychological field theory, whereby leadership emerges as the result of the perception of meaningful acts of challenge or resistance undertaken by individuals that compel others to follow, without invoking exchange mechanisms, character traits or style. More specifically, we find that leadership is the phenomenon of engaging a collective by:

➢ meaningfully challenging the status quo or system over a sustained period of time, combined with the associated accumulation of legitimate power sufficient to align the collective to overcome opposing stabilizing forces, and creation of a new status quo/system and equilibrium; or,

➢ meaningfully resisting challenges to the status quo or system over a sustained period of time, combined with the associated accumulation of legitimate power sufficient to align

the collective to bolster stabilizing forces that would otherwise be overcome by the challenging forces, thereby consolidating the status quo/system and equilibrium.

We claim that this is an essence that people perceive and respond to in seeking out and reacting to leaders.

Five studies were conducted to test and validate the theory. Studies 1, 2, and 3 provided experimental evidence confirming our first hypothesis that an individual who meaningfully challenges the status quo more strongly than another over time will be perceived to be a stronger leader. Studies 4 and 5 provided qualitative evidence supporting our second hypothesis that individuals who are asked to recount in some detail specific acts of leadership they have experienced will share the unique common thread of perceiving another individual (or individuals) meaningfully challenging the status quo or system with respect to an issue of concern over a sustained period, or meaningfully resisting challenges to the status quo or system. We conclude with a general discussion of what has been learned and recommendations for future work.

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There is nothing more difficult to take in hand,
more perilous to conduct,
or more uncertain in its success,
than to take the lead in the
introduction of a new order of things.
- Niccolò Machiavelli, "The Prince"

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.
- T.S.Eliot, "Little Gidding"

Everything should be made as simple
as possible, but not simpler.
- attributed to Albert Einstein

A Field Theory of Leadership

1. An Overview of the Study of Leadership and Its Challenges

Leadership is a significant phenomenon that attracts great attention in our society. It seems to be something that most of us intuitively understand and acknowledge based on everyday experience. We look to political, military, religious, community, corporate and other leaders to solve critical issues, guide our actions, inspire us, and show us the way forward. We attribute outcomes to leaders, judge them as good and bad, claim to know them when we see them, and sometimes aspire to be them. We decry the absence of leadership, vilifying those whom we expect to demonstrate leadership but do not. Yet despite the pervasive focus on leadership in so many aspects of our lives, the critical importance we place on the phenomenon, and the volumes of material written on the subject, the essence of leadership still eludes us. We do not have a rigorous definition of leadership, nor a shared understanding and agreement of what a leader is or does, whether leadership is inherent in the individual or is dependent on the circumstances (or both), whether it is learned, whether it can be taught, whether it actually exists in practice and, if it does, whether it makes a difference and how.

As one writer states: "… it is commonly assumed that a leader exerts influence on the behavior of followers and most … theories … are built on this assumption. However, the theories are silent about how the processes of influence work and, unless we understand how people are able to exert influence without using power or coercion, leadership remains an abstract 'black box'." (Rollinson, 2008, p.376)

In the current research we propose that there is an alternate way to look inside the 'black box' of leadership that differs from the current key leadership theories, based on trait, style, contingency/situational, transactional and transformational concepts, while also informing these theories. This approach draws on psychological field theory and provides a perspective that gives new insights into the essence of leadership as well as providing concrete opportunities for design, education and practice.

We first briefly discuss major concerns voiced by scholars both with regard to research on leadership and the application of research in practice. We then review some of the major theories and identify a number of challenges in their assumptions and approaches. Finally, we suggest an alternate approach to investigating and understanding the phenomenon.

1.1 Recognition of a Crisis in the Field

Although there has been a significant volume of research and publication on leadership over the past many decades, a number of scholars have noted that the field is still early in its development, is without shared understanding and agreement regarding the leadership concept itself, is lacking an overarching theory, and has had minimal success in practical application of existing knowledge for the betterment of organizations and society at large. Below are sample observations from a variety of key scholars in a number of disciplines (e.g., social psychology, political science, business, organizational behaviour, and management sciences) over the last 40 years.

The political scientist James MacGregor Burns, whose seminal 1978 work *Leadership* introduced the distinctions 'transactional' and 'transformational' leadership, concepts which subsequently generated much research, stated:

"If we know all too much about our leaders, we know far too little about *leadership*. We fail to grasp the essence of leadership that is relevant to the modern age and hence we cannot agree even on the standards by which to measure, recruit, and reject it … Leadership is one of the most observed and least understood phenomena on earth." (Burns, 1978, Prologue pp. 1 – 2)

In his Foreword to an edited volume on multidisciplinary perspectives by leadership professor Barbara Kellerman some years later, Burns reiterates: "… we still lack a widely accepted parsimonious and rigorous (if not elegant) "general theory" of leadership ... The problem is that no field of study calls for a more difficult and daring crossing of disciplinary borders than does the study of leadership, and no field suffers more from narrow specialization." (Kellerman, 1984, p.vii).

In her introductory remarks to the same volume, Kellerman makes a number of interesting observations. She builds on Burns observation that the leadership phenomenon is widely

observed but poorly understood: "… although there is a small body of literature that addresses what leadership ought and ought not to be, there is surprisingly little on what leadership *is*. The work that exists in this area tends to be prescriptive rather than descriptive." (Kellerman, 1984, p. ix; italics in the original). She further notes a linguistic difficulty – the common, but not shared, use of the term leader in everyday language: "… terms such as *leader* and *leadership* mean different things to different people. They also mean different things to different fields. In the administrative sciences, for example, the word *leader*, and the more pedestrian word *manager*, are often used interchangeably. But in psychoanalytic theory the *leader*, by definition, is someone of considerable drama: a powerful father figure who watches over us, and whom we need and want to look up to. To social psychologists the leader is typically the one with the most personal influence, while to political scientists the leader is the one who occupies the position or fills the role that allows him or her to wield the greatest power." (Kellerman, 1984, p.x; italics in the original).

Fast forward 28 years: Kellerman is now James MacGregor Burns Lecturer in Public Leadership at Harvard's Kennedy School of Government. Despite years of research and practice she has written a book called "The End of Leadership" in which she laments the state and impact of the study of leadership and the rise of the "leadership industry": "… leaders of every sort are in disrepute; … the tireless teaching of leadership has brought us no closer to leadership nirvana than we were previously; … we don't have much better an idea of how to grow good leaders, or of how to stop or at least slow bad leaders, than we did a hundred or even a thousand years ago; … over its roughly forty-year history the leadership industry has not in any major, meaningful, measurable way improved the human condition." (Kellerman, 2012, p.xiv)

On the other side of the Atlantic, Keith Grint, Professor of Public Leadership and Management at Warwick University, similarly wrote this: "What is leadership? Well, despite almost three thousand years of ponderings and over a century of 'academic' research into leadership, we appear to be no nearer consensus as to its basic meaning, let alone whether it can be taught or its effects measured and predicted. " (Grint, 2010, p.1)

Kellerman goes on to expound on why all this matters: "I wish I could say that these truths are a matter of only minor importance – of interest only to those of us who make a living from leadership, or to those who pay to learn how to lead. But they are not … humankind writ large is

suffering from a crisis of confidence in those who are charged with leading wisely and well, and from a surfeit of mostly well-intentioned but finally false promises made by those supposed to make things better." (Kellerman, 2012, p.xiv)

Somewhat disconcertingly, in beginning her more detailed arguments and trying to shed light on approaches to constructively move ahead, Kellerman says this: "… I avoid like the plague definitions of leadership (of which, at last count, there were some fifteen hundred) and theories of leadership (of which there are around forty). Instead I keep it simple: I assume that leadership development implies developing good leaders, and that good leaders are both ethical and effective." (Kellerman, 2012, p.xxi)

In response, we would argue that the search for a clear understanding of the phenomenon of leadership, a precise definition of the concept, and continued effort to develop a valid theory is both warranted and critical, for the important and hard-to-dispute reasons that Kellerman herself has outlined above, evident in organizations and societies around the world. Avoiding definitions and theories because of historical shortcomings or failures, the preponderance of diverse and inconclusive existing literature, and the daunting challenge of the task, is seemingly to abandon the field to failure. How can we make progress without a real grasp of the leadership phenomenon (if it actually exists) and a useful, grounded theory that informs and guides our thought and actions?

Grint and other scholars who have grappled with this notion that leadership research has yielded limited insights have gone on to conclude that the concept is essentially undefinable and must be approached either from a variety of functional perspectives (e.g., leadership as person, position, process, or results – Grint, 2005, 2010 – more on this below) or in a culturally relative manner (Smith and Peterson, 1988). In their assessment of various early leadership theories, Smith and Peterson observe: "… there has been a period of around 70 or so years during which researchers into leadership acted as though they were medieval alchemists in search of the philosophers' stone. Repeated attempts to distil the 'essence' of leadership yielded no great insight, but researchers nonetheless persisted with research strategies which were not substantially different. It is tempting to presume that they did so for similar reasons to those of the medieval alchemists: they knew that what they were seeing was really there, even though it was not visible … What we have from all this is certainly not nothing. We can make various statements about traits,

skills, styles or motives which frequently contribute to effective leadership. But equally, that knowledge is no great advance on lay conceptions of effective leadership.   More importantly, this type of approach has been exhaustively studied and shown to yield little. Such a negative finding opens the way for other types of theorizing which hold more promise." (Smith and Peterson, 1988, pp. 11-12). They go on to embrace contingent approaches to leadership and, more broadly, contingent approaches based on cross-cultural contexts and considerations.

The notion that the concept of leadership is undefinable and cannot be objectively understood, but rather is inherently intractable in nature and must be viewed and analyzed as such has been advocated and pursued by a number of scholars. For example, Keith Grint posits that leadership is perhaps an "essentially contested concept" – a distinction introduced by the Scottish social theorist, political theorist, and philosopher W.B. Gallie: "Recognition of a given concept as essentially contested implies recognition of rival uses of it (such as oneself repudiates) as not only logically possible and humanly "likely", but as of permanent potential critical value to one's own use or interpretation of the concept in question." (Gallie, 1964, pp. 187-8). Grint gives specific examples of the application of the essentially contested construct to a variety of concepts, e.g., sustainable development, security, civil society, and terrorism (Grint, 2005, p.18)

Given his premise that leadership is likely an essentially contested concept, for which different people have different and sometimes irreconcilable definitions and interpretations, and therefore also different measures of what constitutes, for example, leader effectiveness, Grint goes on to suggest a taxonomy comprised of what he claims may be mutually exclusive elements that encompass and explain many of our empirical experiences and associated definitions. He suggests four alternatives (Grint, 2005, p.18):

- Leadership as Person: is it **_who_** 'leaders' are that makes them leaders?
- Leadership as Result: is it **_what_** 'leaders' achieve that makes them leaders?
- Leadership as Position: is it **_where_** 'leaders' operate that makes them leaders?
- Leadership as Process: is it **_how_** 'leaders' get things done that makes them leaders?

Grint goes on to say: " All these aspects are 'ideal types', following Weber's assertion that no such 'real' empirical case probably exists in any pure form, but this does enable us to understand

the phenomenon of leadership better, and its attendant confusions and complexities, because leadership means different things to different people." (Grint, 2005, p.19)

The diversity of perspectives on leadership, the still nascent nature of the field, and the challenges faced by scholars in shedding light on this phenomenon are well-captured in a thick volume published by the Harvard Business School in 2010 (Nohria & Khurana, 2010). This "Handbook of Leadership Theory and Practice" is a compilation of 30 papers by more than 40 scholars from a variety of disciplines – social psychology, organizational behaviour, business/management, economics, law, political science/government studies, sociology, history, and adult education – presented at a colloquium entitled "Leadership: Advancing an Intellectual Discipline" that was organized as part of the school's centennial celebrations. The editors and contributors echo much of the thinking outlined above.

The volume opens with this statement: "At a time when societies around the world are crying out for more and better leadership, when our current leaders (especially in business, but also in government and other spheres of public life) have lost legitimacy, questions are being asked, sometimes angrily, of the institutions that school these leaders: What kinds of leaders are these institutions developing that have caused so much hardship for so many? … Do we really understand what it takes to develop better leaders? What advice can scholars give leaders who are entrusted with the challenges of leading organizations and ensuring their continued viability and prosperity? Our view … is that the current state of scholarly research on leadership doesn't allow us to answer these questions with confidence." (Nohria and Khurana, pp. 3-4)

And just as numerous other scholars like those referenced so far have done, Nohria and Khurana go on to question whether it is even possible to nail down the leadership phenomenon: "How can we explain this disconnect between the mission and everyday practice? Perhaps it is because leadership is an elusive construct, riddled with so much ambiguity that it is hard to even define let alone study systematically." (Nohria and Khurana, p.5) One of the contributors to the volume, Richard Hackman, observes: "After participating in two days of discussions about leadership, I am tempted to suggest in these closing comments that our focal concept is little more than a semantic inkblot, an ambiguous word onto which people project their personal fantasies, hopes, and anxieties about what it takes to make a difference. That would be more

provocative than constructive, however, because there really *is* something there." (Hackman, "What is This Thing Called Leadership?" in Nohria and Khurana, p. 107)

In closing this overview of the evident challenges in the study of leadership, we reference two other major thinkers in the field of organizational behaviour and management, Jeffrey Pfeffer and James March. Pfeffer has researched and written extensively on leadership and organizations and has been an advocate of what he and colleague Robert Sutton call "evidence-based management", a phrase stemming from their concern that much writing in the field is "… wonderfully disconnected from organizational reality and, as a consequence, useless for sparking improvement." (Pfeffer, 2016, p.1) He has penned a couple of articles that highlight some of the shortcomings that concern him. Their titles convey his thoughts: '*The Half-Truths of Leadership*' and '*Getting Beyond the BS of Leadership Literature*' (Pfeffer and Sutton, 2006; Pfeffer, 2016) Pfeffer identifies several key issues, most notably the fundamental attribution error (attributing behaviours and outcomes dispositionally, i.e., solely to the individual rather than to the individual in conjunction with the situation and system within which the individual is operating, and the associated social forces). He also laments that leadership has become a "morality tale', offering prescriptive approaches and solutions that are often not based on grounded observations, data and evidence, but rather on individual beliefs, opinions and aspirations. He sees this moral framing in the context of confirmation bias – seeing and remembering what one is motivated to believe – as well as causing oversimplification of the complexities and dilemmas that require nuanced choices by leaders ('good vs. bad' rather than a more complex reality).

A final note: James March is also an eminent scholar in the field of organization and management. He offered a course on leadership at Stanford from 1980 to 1994. The essence of those lectures was captured in a book entitled 'On Leadership' (March and Weil, 2005). It is a rich and interesting read, but perhaps its most salient feature is that there is not a single reference to the vast social science literature on the topic. Rather, March chose to illustrate the issues of leadership through reference to four great works of literature: *Othello, Saint Joan, War and Peace,* and *Don Quixote.* Surely this absence of references is not accidental, and should give us further pause in our thinking about the leadership phenomenon and our crisis in understanding.

1.2 A Review of the Literature and Some Key Challenges

In this section we provide an overview of the leadership literature, outlining the main approaches and theories. A number of issues are identified, in particular a lack of clarity and precision regarding the nature of the leadership phenomenon, manifest in conflation of leadership with occupation of an organizational role and with the demonstration of effectiveness in that role. How and why leadership emerges in the first place in the perception of observers remains unclear. These challenges open up opportunities for exploration of alternate approaches to understanding the phenomenon.

Beliefs about the nature of leadership have evolved over time as well as being somewhat dependent on the particular disciplines of the observers (e.g., social psychology, political science, sociology, business). Some definitions view leadership from the perspective of power and control, others from the perspective of character, personality and traits, others from the angle of group dynamics, relationships and behaviours, and still others from the view of complexity.

The English word leadership derives from a number of etymological roots (Grint, 2005, p.30 and p.105):

- from the Old German '*Lidan*', meaning 'to go', 'to guide', 'to show the way';
- from the Old English '*Lithan*', meaning 'to travel'; and,
- from the Old Norse '*Leid*', meaning 'to find the way at sea'.

The English word follower is derived from the Old English *Folgian* and the Old Norse *Fylgja*, meaning to accompany or help. By way of comparison, the English word management derives from the Latin *manus*, meaning 'the hand that controls' (Grint, 2005, p.30 and p.105).

Below are some representative definitions of leadership:

i)   from the Oxford dictionary: "Cause (a person or animal) to go with one by drawing them along; show (someone) the way to a destination by preceding or accompanying them; be in charge or command."

ii)   Katz & Kahn, 1966 (p.302): "… we consider the essence of organizational leadership to be the influential increment over and above mechanical compliance with the routine directives of the organization."

iii)   Bass, 1990 (pp.19-20): "Leadership is an interaction between two or more members of a group that often involves structuring or restructuring of the situation and the perceptions and expectations of the members. Leaders are agents of change – persons whose acts affect other people more than other people's acts affect them. Leadership occurs when one group member modifies the motivation or competencies of others in the group."

iv)   James McGregor Burns, 1978 (p.436): "… the reciprocal process of mobilizing by persons with certain motives and values, various economic, political and other resources, in a context of competition and conflict, in order to realize goals independently or mutually held by both leaders and followers."

v)   Jay Lorsch (in Nohria and Khurana, 2010, p.414): "A leader is an individual who influences others to follow him or her."

Somewhat common to all these definitions is the notion of an individual (or individuals) mobilizing others towards some end, somewhere along a power differential continuum. McGregor Burns' invocation of a "reciprocal process" seems to imply a degree of "soft", non-coercive power, while Bass' and the Oxford definitions seem to be more directive. The source of the power differential in the alignment of forces seems to be one aspect that differentiates leadership from management. Managers can be thought of as deriving power from "above", i.e., through a hierarchy and chain of command. A Board confers power on a CEO (through delegated authority, which is "legitimate" power as opposed to despotic "non-legitimate" power); the CEO in turn cascades this power through the managerial ranks – this is "positional" authority. In contrast, it would seem that leadership power is often thought to be derived from "below", i.e., those who choose to align with and "follow" a leader are conferring authority on that individual – this is "personal" authority.

March & Simon (1958) and Katz & Kahn (1966/1978) both provide observations regarding organizational/managerial leadership. March & Simon imply leadership[1] as a discretionary degree of freedom *within* the constraints of programmed decision-making in a hierarchy. Katz & Kahn explicitly ascribe leadership to the need for discretionary decision-making *outside* the confines of programmed constraints, due to the limitations inherent in designing an organizational system that can anticipate and handle all contingencies that might arise (e.g., incompleteness of organization design to provide sufficiently detailed and appropriate specification of required work; changing external environment causing mismatch with organizational efforts; and unanticipated internal dynamics and complexities arising from people interacting together).

A critical distinction of interest in leadership studies is that between leadership emergence and leadership effectiveness. Emergence focuses on understanding why we might perceive an individual to show up as a leader in the first place – this is our primary interest in the research undertaken and reported in this thesis. Effectiveness focuses on how an individual already perceived as a leader might better execute in that role. Judge et al observe the following distinctions between emergence and effectiveness: "… research on leadership emergence identifies the factors associated with someone being perceived as leaderlike … Thus, leader emergence refers to whether (or to what degree) an individual is viewed as a leader by others, who typically have only limited information about that individual's performance. In contrast to being perceived as a leader, leadership effectiveness refers to a leader's performance in influencing and guiding the activities of his or her unit toward achievement of its goals." (Judge et al, 2002, p.767)

There are many theories of leadership. Those that relate to emergence tend to focus on dispositional qualities and characteristics that might predispose an individual to be perceived as a leader, most often in an organizational setting. Most research, however, focuses on the determinants of effectiveness of individuals in managerial roles, again in an organizational context. For the purposes of our discussion, it is useful to mention the main themes that

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[1] Interestingly, March and Simon do not expressly refer to leadership – the phenomenon is inferred in their writing by others. As Katz and Kahn note, "…March and Simon (1958) wrote a major book on formal organization in which the word *leadership* appears neither in the table of contents nor in the index." (Katz and Kahn, 1966, p.300, italics in the original)

encompass the field and typify most studies, to more fully understand where research has been focused and to reveal associated issues and opportunities for further exploration. Theories tend to fall roughly into somewhat distinct categories, for example, leader-based, relationship-based, or follower-based approaches, or focused on traits, style, contingency/situational, transactional and transformational perspectives (Rollinson, 2008; Barling, 2014).

Trait theories (leader-based) rely on the identification of personality characteristics that presumably influence others (Weber, 1947; Stogdill, 1948, 1974); however, a common set of traits has never been clearly identified. Researchers have tried to assess whether particular traits distinguish leaders from other individuals and, if so, what the magnitude of these differences might be. More recent efforts have attempted to correlate leadership with the widely-accepted five-factor model of personality – extraversion, agreeableness, conscientiousness, open-mindedness, and neuroticism. While extraversion shows the highest correlation of the five, and more so with respect to emergence than effectiveness, a meta-analysis showed none of these individual factors to be very strongly correlated (Judge et al, 2002).

Building on the trait-based approach, Grant et al used dominance complementarity theory[2] as a basis for experimentation to show that extraverted leadership enhances group performance when employees (followers) are passive, but this effect reverses when employees are proactive, because extraverted leaders are less receptive to proactive followers. As well, leaders low on extraversion (i.e., intraverted leaders) paired with proactive groups generated higher group performance (Grant, Gino, and Hofmann, 2011).

Style, skill, and motivational approaches (relationship-based) focus on behaviours such as attention to task completion (task-orientation/"initiating structure") and follower satisfaction (relationship-orientation/"consideration") that may underpin leadership (Ohio State studies, Stogdill and Coons, 1957, Stogdill, 1974; U. of Michigan, Likert, 1961; Yukl and Nemeroff, 1979). Contingency theories see various behavioural styles as appropriate depending on the

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[2] Grant et al explain: "According to dominance complementarity theory, effective interactions are achieved when dominant, assertive behavior from one party is matched by submissive, passive behavior from another. A core tenet of dominance complementarity is that people seek balance in interpersonal interactions: when one acts dominant, the other is expected to act submissive, and this pairing allows them to coordinate their actions and interactions effectively … complementarity exists when the individual contextually recognized as being superior is in the 'one-up' or primary position, whereas the person recognized as being inferior is in the 'one-down' or secondary position. Dominance complementarity represents the existence of a status hierarchy…" (Grant, Gino and Hofmann, 2011, p.531)

situation. For example, Fiedler identifies specific leadership styles ('task-oriented' vs. 'relationship-oriented') that are most effective in mobilizing group members (followers), depending on 'situational favorableness'. Situational favorableness is operationalized along three dimensions: i) the group has good leader-member relations, i.e., the group respects and accepts the leader or the leader feels accepted by the group; ii) there is clear task structure, i.e., the group has a highly structured, clearly outlined task rather than a vague, unstructured, nebulous task; and iii) the leader has clear positional power, i.e., the leader occupies a position that is vested with power (to hire and fire, promote and transfer, give raises or lower salaries). Task-oriented leadership is found to be most effective in situations that are either highly favorable or highly unfavorable, while a relationship-oriented approach is best in situations of intermediate favorableness (Fiedler, 1967, 1971, 1978).

Path-goal theory attempts to combine elements of motivational/expectancy theories (e.g. Vroom, 1964) and match leader behaviors that will ensure subordinates are maximally motivated toward organizational goals, taking into account subordinate personal characteristics and the work environment. These leader styles are designated 'instrumental', 'supportive', 'participative', and 'achievement-oriented' (House and Dessler, 1974; House and Mitchell, 1974). The path-goal approach had some success integrating conflicting findings of previous studies with respect to leaders initiating structure and showing consideration and resulting effects on subordinate satisfaction (House, 1971). Research had shown that leaders who initiate structure for their staff are rated higher by their bosses, and that their groups produce higher output, than those who are rated lower on this dimension, while those who showed greater consideration had more satisfied subordinates. However, the results regarding the link between initiating structure and subordinate satisfaction were mixed and the relationship unclear.

Leader-member exchange theory (LMX) focuses on the quality of the leader-member relationship (seen as a mutual relationship, rather than unidirectional from leader to follower), postulating that each vertical leader-member dyad is unique and must be addressed as such, rather than aggregating the feelings of a group toward its leader (Graen and Uhl-Bien, 1995) . While LMX has been helpful in predicting staff turnover in an organization, it tends to ignore the influence of context and situation within which the dyad exists.

Transactional concepts focus on exchange mechanisms in the guise of contingent rewards – economic (e.g., money), social (e.g., promotional opportunities) and psychological (e.g., friendship) (Burns, 1978; Bass, 1990). The focus here is on managers setting goals for staff, providing performance feedback and coaching, and ensuring desired behaviours. Rewards and punishments are then meted out by the manager to employees commensurate with individual performance. The transactional perspective is very much rooted in the formal, hierarchical, positional, coercive power of the manager, rather than the informal, non-coercive, personal power the manager might derive from the development of robust and constructive interpersonal relationships with staff and that would more likely be associated with common assumptions around the nature of leadership.

In contrast, transformational concepts tend to ascribe characteristics to the leader – 'idealized influence', 'inspirational motivation', 'intellectual stimulation', 'individualized consideration' – that speak to the values of, and elevate, the follower (Bass and Riggio, 2006, Bass, 1990, Burns, 1978). The power focus shifts from positional to personal. Idealized influence focuses on modelling desired behaviours that transcend self-interest and strive for the collective good, place long-term interests ahead of short-term, and are more concerned with invoking ethical judgments rather than deferring to ease and expediency. Inspirational motivation involves behaviours that help employees exceed the expectations that they have for themselves, by setting high but realistic goals, and by demonstrating belief in the employee's ability to achieve. Intellectual stimulation relates to behaviours that constructively challenge followers' assumptions, encourage them to think for themselves, and thus encourage staff personal development and build trust in their judgment. Individualized consideration focuses on behaviours that build and enhance one-to-one interactions with staff, where the manager listens well and demonstrates care and empathy.

Transformational leadership is the most frequently-researched current leadership theory. In many studies, transformational behaviours have been found to be be positively correlated with increased employee performance, satisfaction, and participation/engagement (Podsakoff et al, 1990; Barling, 2014). For example, a number of studies have shown a positive linkage between all four elements of transformational leadership and affective commitment to an organization ('I want to be a member of this organization.') (Jackson, T.A. et al, 2013). This is of note since

affective commitment has been shown to have the most consistently positive effects on employee attitudes and performance (Klein et al, 2009, Jackson et al, 2013). Transformational leadership studies, however, focus on organizational settings and again are concerned more with individual effectiveness in a managerial role than emergence in a formerly 'leaderless' situation. The so-called '4i's' of the transformational construct do not happen in a vacuum – idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration must somehow be meaningful to 'followers' in some context and for some reason which compels the leadership phenomenon to appear in the first place. These behaviours then facilitate the effectiveness of leadership in that emergent context. For example, one might experience idealized influence and inspirational motivation in watching paralympic athletes compete, but these athletes would not necessarily be perceived as leaders without some precipitating collective concern. In contrast, Nelson Mandela and Winston Churchill also likely induced idealized influence and inspirational motivation in others, in the context of the larger causes and collective challenges that they confronted and which they engaged others to confront, precipitating others' perceptions of them as leaders in those contexts.

Some researchers have observed that there are significant similarities between the transformational leadership constructs and a number of managerial practices. For example, a study comparing the transformational leadership scales from Bass and Avolio's multifactor leadership questionnaire with four scales from Yukl's managerial practices survey provided mixed support for the distinctiveness of the leadership questionnaire (Tracey and Hinkin, 1998). While measures of transformational leadership accounted better for variance in ratings of leader effectiveness, the leadership questionnaire and managerial practices scales were highly related. This further supports our contention that the transformational construct relates more to managerial effectiveness in an established role rather than explaining leadership emergence.

Closely related to transformational leadership theory is charismatic leadership (House and Howell, 1992; Conger et al, 1997; Conger and Kanungo, 1998). Individuals with charisma are deemed able to inspire others with a vision and actions that are perceived as extraordinary. In an organizational setting, staff are seen to follow charismatic managers because of this perception, rather than due only to formal power and authority. The distinction between transformational and charismatic theories is the absence of the intellectual stimulation and individualized

consideration components in the charismatic construct. This is a notable difference, in that intellectual stimulation in some studies has been found to contribute to higher return on equity and sales growth in market conditions of significant uncertainty, while charismatic factors have not (Waldman et al, 2004).

While the theories and associated studies outlined above provide some guidance as to effectiveness, they focus primarily on individuals in so-called leadership roles in structured organizational environments and situations, where leadership is already assumed and the challenge is then influencing others to act in particular ways or towards desired outcomes, enhancing or augmenting formal positional power. Those studies that focus more on factors deemed related to emergence – traits, charisma, and some transformational dimensions – have also been conducted almost exclusively in organizational settings. Thus again the assumption is that individuals occupying certain roles are demonstrating leadership or were appointed to the role because they demonstrated leadership, and the purpose of the research is to determine what traits or characteristics might be more dominantly manifest by these individuals than by non-leaders, as predictors of leadership emergence.

A flaw in this approach is the assumption that the individuals occupying particular roles are in fact demonstrating leadership, or have previously demonstrated leadership, by virtue of occupying the role – the phenomenon has been conflated with the role. Insufficient attention seems to have been paid to more rigorously and fully understanding and defining the essence of the leadership phenomenon, and how leadership emerges in unstructured situations, i.e., what causes observers to perceive leadership to show up in a situation without a previously-appointed leader? Current approaches to emergence based on identifying traits and transformational characteristics of those in organizational roles do not clearly answer this question. Some individuals whom we would call leaders seem to exude charisma, some do not. And not all seemingly charismatic individuals would necessarily be categorized as leaders. Similarly, some leaders seem to demonstrate some of the transformational dimensions outlined above, and some do not. And again, some individuals exhibit some of these transformational characteristics without necessarily being seen as leaders. Thus there does not seem to be a unique correspondence between presumed leadership role characteristics and behaviours explored in current theories and the leadership phenomenon as experienced in practice. We have still not

captured the essence of leadership – assuming that those occupying so-called 'leadership roles' are *de facto* demonstrating leadership is a logical leap.

Having assumed leadership in a role, a second flaw in current research relates to understanding effectiveness. Data are collected regarding supposed organizational success (e.g., return on investment, return on capital, market share, market capitalization, year-over-year revenue, earnings, or sales growth, employee satisfaction, and so on) to help identify the most effective corporate leaders. These data are then correlated with the characteristics or styles of these presumed effective executives, to determine what makes for the most effective leadership. The flaw arises in the form of the fundamental attribution error – attributing to the individual what is more likely a function of both the individual and the system/situation within which the individual is operating (e.g., fluctuating markets, government regulatory overlays, natural disasters, political events, etc.). How much organizational/corporate success one can attribute to the individual is unclear – as much research has shown, we often mistakenly attribute to the individual outcomes that are the result of systemic and situational forces beyond their control (e.g., Cohen and March, 1974, Pfeffer and Salancik, 1978, Pfeffer, 1977, 1997, Pfeffer and Sutton, 2006). The stronger the situational forces, the weaker the dispositional effect (e.g., Asch 1956, Milgram 1963, Zimbardo 2007).

Another approach to uncovering leader effectiveness involves collecting staff perceptions of their managers and correlating individual characteristics and behaviours with those deemed most successful (data may also be collected from other observers, e.g., the manager's colleagues and boss). Again, this presumes the leadership phenomenon is present in the role, and that individual perceptions of role effectiveness equate to leadership effectiveness arising from certain characteristics or behaviours.

Thus a number of challenges seem evident in the current approaches to leadership and the associated literature. Current definitions and theories do not clearly describe a unique phenomenon, existing theories tend to focus more on effectiveness in a presumed leadership role than on emergence of leadership in the perception of others, and some underlying research assumptions are problematic. There is an opportunity to explore alternate avenues to more clearly understand the underlying phenomenon and to better explain its emergence.

2. *Theoretical Approach*

No man can struggle with advantage against the spirit of his age and country, and however powerful a man may be, it is hard for him to make his contemporaries share feelings and ideas which run counter to the general run of their hopes and desires.

Alexis de Tocqueville
Democracy in America

It would seem reasonable to assume that leadership has something to do with mobilizing others to think and/or act in a particular way. Moreover, we might expect this to involve alignment of a collective of individuals who would not otherwise align in a given situation, consequent to the overt direction or action of some individual or individuals (if the collective aligns of its own accord, there would not appear to be much need for leadership). This would, in turn, seemingly require the application of some kind of psychological force to move individuals into collective alignment.

Thus it would appear that we need to more fully explore two areas:

- insights into determinants of behaviour and psychological movement of individuals, and
- insights into the collective action of groups of individuals and identification of conditions under which alignment of the collective might not happen without an intervention

Lewin's field theory of psychological forces, Barker's theory of behaviour settings, and concepts from economics and game theory regarding collective action provide a foundation for further exploring these ideas and developing an alternate perspective on leadership. Below we introduce relevant concepts and then apply them to develop our theory.

2.1 Foundations for the theory

2.1.1 Lewin's field theory of psychological forces and human behaviour

Lewin (Lewin, 1947 1(1) and 1(2); Dent and Goldberg, 1999) characterizes an individual as operating at any given time in an encompassing subjective psychological environment or 'life space', comprised of various 'regions of activity' (e.g., working on an assignment; going to the gym to work out). These regions of activity are somehow linked in the individual's mind, representing collections or sequences of psychologically meaningful activities instrumental to

accomplishing various near-term ends. These ends may be linked to some longer-term objectives, but the individual's focus and behaviour are in the here and now.

Some of these regions are subjectively attractive to the individual, with greater and lesser strengths of attraction. Some are not attractive, but tend rather to repel the individual, again with various strengths. Lewin called the attractive and repulsive properties of a region 'valences' – a region has a positive valence if it attracts and a negative valence if it repels. A region with a positive valence will induce a psychological force in the individual that tends to move him towards that region, while a region with a negative valence will tend to move him away. The valence of a region may change for the individual once a need has been met (e.g., the region of activity 'going to the gym' may have a lesser positive valence, or even a negative one, once one has completed a workout). Thus a stimulus (e.g., a gym) retains relevance only as long as the individual has a related concern (e.g., working out).

The psychological movement caused by such forces is deemed 'locomotion'. The movement may have a physical component (e.g., going from one's place of work to a gym to work out) or it may be only psychological (e.g., remaining in one's place of work as the workday winds down but in one's mind already finished work for the day and anticipating meeting friends for an evening gathering). Movement from one region to another requires crossing a boundary between the regions. A boundary can be physical (e.g., moving from one's place of work to a bar to meet friends) or psychological (e.g., completing a piece of work for your manager before you can leave work), with associated ease or difficulty (and related physical and psychological forces in play) in crossing the boundary.

A psychological force is subjectively experienced by an individual, depending on how he perceives and interprets his immediate psychological situation, as compared to a physical force which is an objective measure of the acceleration of a physical mass. However, psychological and physical forces share the commonality that they are both vectors, with magnitude, direction, and point of application.

Moreover, an individual's perception and interpretation of his immediate psychological situation – various regions of activity, valences, and associated psychological forces – are influenced by the various discourses and experiences that have shaped him – cultural, religious, national,

educational, professional, and so on. Thus, according to Lewin's theory, an individual's behavior from moment to moment is a function of a field of subjective psychological forces, both individual/dispositional and environmental/situational, i.e.,

behaviour = f (person, environment)

It follows that in any particular circumstance we cannot say that there is an objective 'situation'; there are as many situations as there are individuals perceiving and interpreting 'the situation'. As well, an individual's behaviour is not governed by, or predictable from, so-called 'enduring traits'; how one shows up in a particular social situation depends on individual dispositions in conjunction with the myriad other psychological forces acting upon the individual in that situation. Thus, if someone commits an ostensible crime such as stealing food, is it because this person is 'inherently evil' (dispositional) or is it because she has little option to feed her family otherwise (situational/social forces)? We would claim that her behaviour is a function of both disposition and situation, and may well be different under different circumstances

How do we extend this theory to group situations, which will be relevant to the leadership discussion? As Lewin noted: "It would be prohibitive if the analysis of group life always had to include analysis of the life space of each individual member. Analysis of group life can proceed rather far on the basis of relatively larger units." (Lewin, 1947, 1(1), p.12). Lewin goes on to say that we can narrow our focus on the dynamics of change in a group situation to analysis of a specific property/factor, or a few properties/factors, that are of meaningful concern (i.e., have a valence) to the group members, and explore the conditions under which the distribution of forces might be shifted with respect such properties. He provides two examples: a focus on the change in the level of discrimination (a specific property) against African-Americans in two towns A and B (the groups) over a period of time, and the production level (a specific property, represented by the flow of products) of a work team (the group) over a period of time.

Note that in these examples the point of application of the force is to the group as a whole (the towns and the work team), rather than to the individual, as in the case of analysis of the life space and regions of activity. We need to more fully understand the relationship between the individual and relevant social forces in a group. Lewin explains:

"An individual P may differ in his personal level of conduct (L^P) from the level which represents group standards (L^{Gr}) by a certain amount n ($|L^{Gr} - L^P| = n$). Such a difference is permitted or encouraged in different cultures to different degrees. If the individual should try to diverge 'too much' from the group standards he will find himself in increasing difficulties. He will be ridiculed, treated severely and finally ousted from the group. Most individuals, therefore, stay pretty close to the standard of the groups they belong to or wish to belong to."

"In other words: the group level is not merely a level of equilibrium resulting from whatever forces … the circumstances provide. Frequently this level itself acquires a value. It becomes a positive valence corresponding to a central force field with the force $f_{P,L}$ keeping the individual in line with the standards of the group." (Lewin, 1947, 1(1), p.33).

Two additional concepts round out our discussion of Lewin's theory. Individuals and groups tend to migrate through a series of three steps in the course of successful change. Lewin describes these steps as 'unfreezing' the present level (enabling realignment of previously highly resistive forces), 'moving' to a new level, and 'freezing' at the new level. Each level is determined by a force field and thus stable change requires that the new level be made secure against challenging forces. (Lewin, 1947, 1(1), p.34).

Finally, Lewin observed that social states are 'quasi-stationary' processes, and that groups and organizations are generally in 'quasi-stationary equilibrium'. This echoes concepts from general system theory (von Bertalanffy 1968, Ashby 1963, Beer 1974). Groups and organizations generally establish negative feedback mechanisms (e.g., adherence to standards) whereby information about system output is sampled and acted upon to keep the system moving in the desired way or direction. Negative feedback enables systems to self-regulate, correct deviations from intended course, and preserve and maintain their character. A thermostat controlling room temperature is a simple example. Lewin uses the example of a work team in a factory. The team may maintain a certain production level despite changes in staff, quality of material, and so on.

However, sometimes these equilibria can be, and are, disturbed. Katz and Kahn observe:

"Many aspects of the relationship of organization to environment are well represented in Lewin's concept of quasi-stationary equilibrium. It is consistent with Lewin's exposition of such equilibria that environmental fluctuations of certain kinds and amplitudes are handled by the

organization without any change in the organization itself as a system. It absorbs and adjusts to the external change and returns to the previous level of equilibrium. When an environmental change exceeds this amplitude, the organization may nevertheless adjust to it, but it will undergo systemic change itself in the process and a new level of equilibrium will be established with the environment. It is adaptation of such scale which demands invention and creativity beyond the performance of role requirements; it requires leadership of a high order." (Katz and Kahn 1966, pp.305-6).

Katz and Kahn provide a hint of the leadership phenomenon in this passage. We will see that leadership does indeed involve response and adaptation to forces of change that exceed the automatic stabilizers of an organizational system. However, this is only part of the story. We will claim that leaders sometimes precipitate forces to resist systemic change and sometimes they precipitate forces to cause systemic change.

It should be noted that Lewin conducted an early study to explore leadership based on his theory (Lewin, Lippitt and White, 1939). His approach departed from the trait-based view dominant at the time; instead, he experimentally manipulated the leader's style. Three boys' club leaders each role-played a particular style: autocratic, democratic, and laissez-faire. The boys constructed airplane models under the direction of each leader. Under the autocratic leader productivity was maintained while he was present, but then diminished in his absence. Under the democratic leader, productivity was maintained in both his presence and absence. The laissez-faire leader had poor productivity in comparison to both. Interestingly, productivity was greatest under the autocratic leader (while he was present), but the boys' morale was best under the democratic leader (with productivity maintained). Thus the most effective leadership style was a function of the criterion used to measure effectiveness.

Note that the leaders were appointed – Lewin thus assumed leadership in the role and his study focused on effectiveness. However, with respect to his theory, the critical observation is that inducing a coercive force in individuals aligned the collective as long as the force was maintained (autocratic), while engaging the individuals in the collective in decision-making facilitated induction of a non-coercive force that aligned the collective and maintained that alignment without the need for on-going external intervention (democratic). In contrast, the laissez-faire approach did not provide the needed force either to align the collective initially or to

maintain alignment. Our common understanding of leadership emergence would seem to be more in line with the non-coercive situation.

2.1.2   *Insights into Collective Action*

Individuals sometimes coordinate and cooperate together towards some collective end without the need for intervening forces, and sometimes not. An example of the former is the so-called 'Invisible Hand' of the market, which frequently results in an optimal collective outcome 'unintentionally' through pursuit of individual self-interest; no leadership is needed. However, collectively undesirable outcomes are also frequently achieved in this manner – illustrated, for example, by the 'Prisoner's Dilemma' construct from game theory, where individuals defect to their own interests at the expense of a better collective outcome for all, jointly establishing a stable equilibrium that is sub-optimal for everyone. An intervening force may well be needed to unfreeze and move the parties to a new equilibrium that is collectively optimal, and then freeze that new equilibrium. This would seem to present an opportunity for leadership to emerge.

Our everyday lives are replete with examples of situations where stability is established and maintained through institutional mechanisms and systems or more informally through repeated interactions and habits. For example, the vast majority of drivers coordinate their actions effectively and predictably with each other, as do customers and servers in restaurants, patrons and performers at concerts, judges, jurors and observers in courtrooms, physicians and patients, professors and students, managers and staff, and so on, despite their individual differences and perceptions. Barker explains these consistencies through his theory of behaviour settings (Barker, 1960). Individuals in all these situations behave consistently because they share a common understanding of the situation they are in and abide by the 'rules of the game' governing their interactions, with an awareness of the associated sanctions. These settings are characterized by stability over time – they are self-regulating and maintain a persisting functional level. Thus an individual's behaviour in many collective situations and systems is largely independent of his personal characteristics or disposition (although there may be some variations between people in execution of the same actions based on differences in skills or competence, e.g., 'good' and 'bad' drivers). Individual behaviour in these circumstances is also largely undirected by others, but rather is governed by rules and constraints. These rules and constraints may be administered and enforced by others who have been granted positional power by

established institutional authority. However, these enforcers are simply abiding by the rules and practices of the behaviour setting or system. They need to be effective in their roles, but there is no need for leadership to emerge.

However, if there is a desire to challenge a behaviour setting or system and change the rules of the game, or to stabilize a behaviour setting or system that is under significant challenge, there would seem to be an opportunity for the emergence of leadership. The setting/system is characterized by self-regulation and stability, and an intervening force may be needed to disturb and align individual forces to collectively change or protect it.

2.2 A field theory of leadership

Suppose that some members of a system are no longer satisfied with the existing state of equilibrium; they wish to challenge the system or to significantly challenge a status quo within the system. The automatic system stabilizers will resist these challenging forces, and the system or status quo will not change unless the challenging forces are aligned and strong enough to overcome the stabilizing forces. As James MacGregor Burns observed: "Certainly the great administrative agencies in virtually all societies encompass powerful forces that guard the ramparts against threats to the status quo." (Burns, 1978, p.300).

Suppose, on the other hand, that members of a system or collective are content with the status quo but the system encounters a challenge that it cannot handle – external forces overwhelm the system stabilizer forces. Katz and Kahn write:

"The history of organizations (and of nations) is littered with the corpses of enterprises which failed to respond appropriately to the demands of the environment for change. The required changes may stem from market fluctuations, or from long-term alterations in technology or culture which make a whole product obsolete … Such … event[s] could hardly have been anticipated when the organization was founded, and [changes] of such magnitude are typically unpredicted. As a result, there is nothing in the built-in stabilizing devices of organization for coping with change demands of this magnitude..." (Katz and Kahn, 1966, p.305).

In this case either there is a need for intervening forces to bolster the system stabilizers to enable sufficient resistance to the challenging forces, or there is a need for intervening forces to adjust, modify or perhaps redesign the system to deal with the external forces.

The desire on the part of members to challenge a system or status quo and overcome the resistive system stabilizing forces to do so, or the desire to bolster the stabilizing forces in the presence of an external challenge that is overwhelming these stabilizers, with the associated need for an intervening force not inherent in the system, both present opportunities for leadership to emerge. Neither of these conditions are within the realm of the system's design; they require non-routine, non-programmed and non-programmable action.

Thus we would argue that leadership emerges as the result of the perception of meaningful acts of challenge or resistance undertaken by individuals in some collective action situation that compel others to follow, without invoking exchange mechanisms, character traits or style. More specifically, we find that leadership is the phenomenon of engaging a collective by:

➢ meaningfully challenging the status quo or system over a sustained period of time, combined with the associated accumulation of legitimate power sufficient to align the collective to overcome opposing stabilizing forces, and creation of a new status quo/system and equilibrium; or,

➢ meaningfully resisting challenges to the status quo or system over a sustained period of time, combined with the associated accumulation of legitimate power sufficient to align the collective to bolster stabilizing forces that would otherwise be overcome by the challenging forces, thereby consolidating the status quo/system and equilibrium.

We claim that this is an essence that people perceive and respond to in seeking out and reacting to leaders.

Consider a variety of individuals whom most observers would likely agree fall into the leader category: Mandela, Gandhi, Churchill, Hitler, Mao, Margaret Thatcher, Aung San Suu Kyi, Bill Gates, Steve Jobs, Pope Francis. It is fair to say that these are very different individuals – different personalities, shaped by widely differing discourses, with diverse styles and acting in a variety of different situations. Mandela is associated with overthrowing the apartheid system in South Africa and ousting the supporting government. Gandhi is seen as instrumental in the

overthrow of the British colonial system and rule in India. Churchill was the UK Prime Minister during WWII when the British (and other Allied) systems were under severe assault by Nazi (and other Axis) forces and there was a critical need for extraordinary forces to intervene to bolster the system stabilizers which were in threat of overthrow. Hitler acquired power over Germany and drove the Third Reich to war in an effort to decimate established systems and peoples and create a fascist world order. Mao is credited with bringing the communist revolution to the Chinese masses, overthrowing the entrenched system and rule. Margaret Thatcher oversaw a major displacement of the British welfare state by implementation of conservative policies. Aung San Suu Kyi heads a movement that successfully challenged Myanmar's military system and government. Bill Gates and Steve Jobs both significantly challenged conventional modes of business and industry. Pope Francis seems to be challenging the very strong Catholic Church system with the intent of coming more into line with current societal mores.

What seems to be uniquely common to these individuals (and to leaders in general) is that they all either meaningfully challenged, or resisted challenge to, a system or status quo over a sustained period, aligning a collective to either overcome stabilizing forces or to bolster stabilizing forces that would otherwise have been overcome. This was sometimes an individual effort, with the capability resident in one person applying the intervening force, or it was sometimes a distributed effort among a group of individuals aligned in the needed direction. This individual or group sometimes originated outside the system (Mandela, Gandhi, Hitler, Mao, Aung San Suu Kyi and their collectives) and sometimes within (Churchill, Margaret Thatcher, Pope Francis and their collectives). And these individuals or groups emerged at various organizational/system levels and in a variety of situations. The challenge or resistance phenomenon is consistent, the difference being the magnitude of challenge or resistance that various individuals or groups, at different levels and in different situations, tackle.

Systemic or other resistance to the intervening forces required of leadership is constitutive of the phenomenon itself. Thus it becomes evident that organizational systems are designed to suppress leadership, not to facilitate or encourage it. The work of managers (recall the etymological derivation of the 'controlling hand' mentioned earlier) is to keep the system on track, using positional authority as necessary to monitor feedback and modify, adjust and ensure regulation within system parameters as required. The work of managers is <u>not</u> to challenge the

system beyond its stabilizing forces. They may challenge the status quo somewhat, but there are limits to this as well. The system and associated behaviour settings strive for stability – quasi-stationary equilibrium. As well, the work of managers is not generally to interfere with or augment the system stabilizers to ensure that they are sufficiently robust to resist existential challenges; again, managers are expected to (and generally strive to) operate effectively and efficiently within the system, rather than tampering with the overall system itself.

The leadership phenomenon can show up in various ways and at various magnitudes, as perceived by a receptive collective. Key to this is 'meaningful challenge (or resistance to challenge) to the status quo or system over a sustained period of time'. How should we more fully understand this?

We exist in a social reality of human construction and are 'thrown'[3] into situations, continuously engaged in daily living and involved somehow in activities of concern to us. We experience breakdowns and opportunities in the course of our activities. A meaningful challenge to the status quo or system is a physical or communicative act that takes care of some breakdown or opportunity that is of concern to us (region(s) of activity with a valence) that will not be resolved by the prevailing forces in the system or situation (automatic stabilizers, behaviour settings, rules of the game, programmed responses, and so on).

In simple situations we may see someone act in a way that resonates for us, restructuring the situation as we perceive it, changing the valence of a particular region of activity and thereby inducing in us a psychological force to align and move ourselves towards that region (e.g., a great hunter, warrior, politician, or revolutionary whom we perceive challenges the system or status quo, inducing us to act in alignment). In the more complex situations and systems we generally encounter in society, without the attendant opportunity to be in direct contact with those who challenge or, even if in direct contact, to actually see them in action, we rely on meaningful challenge through language. Others may compel us to follow based on

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[3] The German existential philosopher Martin Heidegger argued that human beings are always involved practically with on-going concerns in the world, interacting with other people and with inanimate objects, and primarily doing so unreflectively, rather than engaging in detached contemplation. He uses the example of hammering. If we want to hammer nails when building something we generally don't stare at and contemplate the hammer – we just go to work hammering nails. Heidegger called this human condition "thrownness" – we are always 'thrown' into the world. (ref. Heidegger, *Being and Time*; Bakewell, *At the Existentialist Café;* Winograd and Flores, *Understanding Computers and Cognition*)

communicative acts that, again, restructure a situation in our perception and create the perceived potential of a new and better (for us) social reality, shifting valences of regions of activity, introducing new regions of activity, removing others, and inducing in us forces to act in alignment with their declarations, requests and offers.

Moreover, there seems to be a time element involved. We may be moved significantly by a particular physical or communicative act, but generally we seem to seek some amount of on-going evidence that our concern(s) will be truly taken care of before fully committing to engage and follow. Thus leadership involves temporal observations of some number of physical and/or communicative acts that meaningfully challenge/resist challenge to the status quo or system. It also involves the temporal acquisition and accumulation of associated legitimate power.[4]

We can visualize the leadership phenomenon using the following diagram:

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[4] As French and Raven observe: "It is assumed that O is capable of various acts which, because of some more or less enduring relation to P, are able to exert influence on P. O's power is measured by his maximum possible influence, though he may often choose to exert less than his full power … The concept of power has the conceptual property of potentiality; but it seems useful to restrict this potential influence to more or less enduring power relations between O and P by excluding from the definition of power those cases where the potential influence is so momentary or so changing that it cannot be predicted from the existing relationship. Power is a useful concept for describing social structure only if it has a certain stability over time; it is useless if every momentary social stimulus is viewed as actualizing social power." (Cartwright, 1959, p.152)
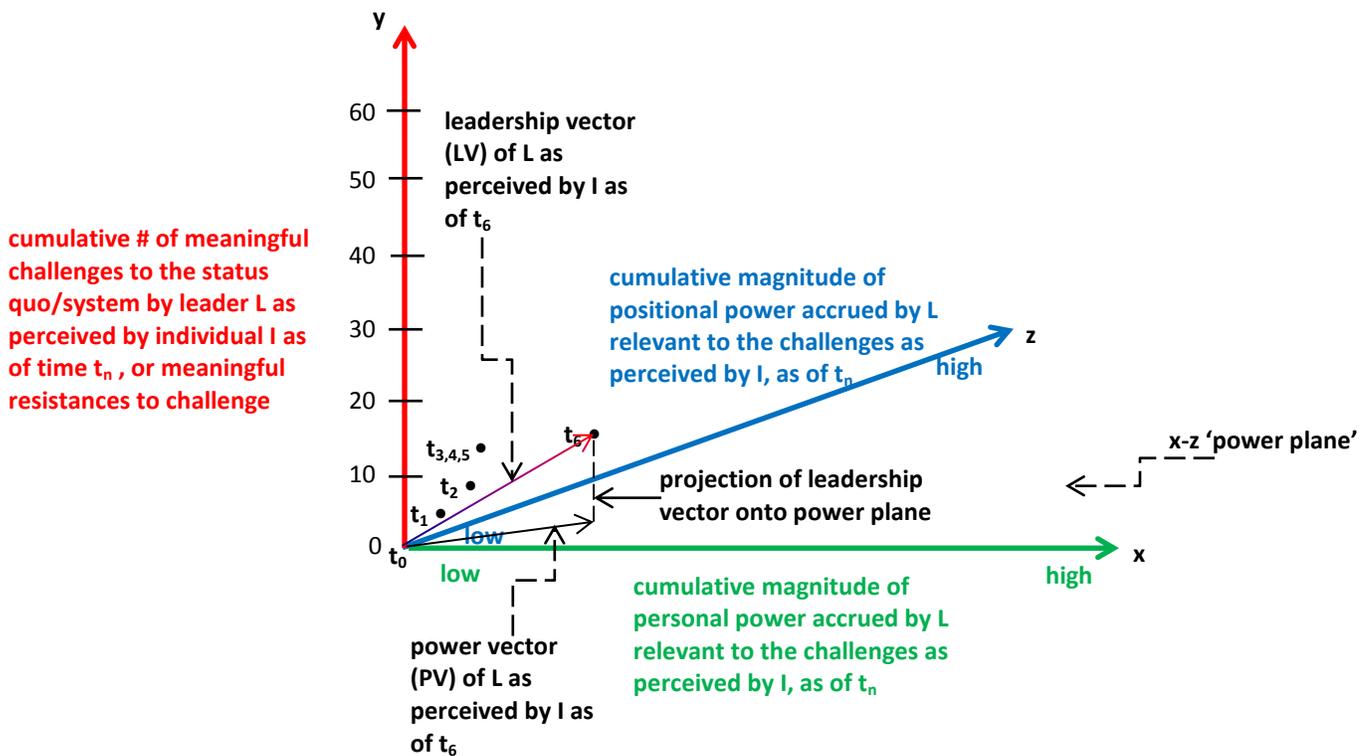
Figure 1: Dimensions of leadership emergence as perceived by an individual over time

Figure 1 illustrates emergence of the leadership phenomenon, manifest by a leader (individual or group) 'L', as perceived by an individual 'I'. The y-axis represents the cumulative number of meaningful challenges (or resistances to challenges) to the status quo or system by L as of time t_n, in the form of communicative or physical acts, as perceived by I. The x and z axes represent the cumulative legitimate power accrued by L relevant to tackling the challenges (personal and positional power), as perceived by I as of time t_n. We will refer to the x-z plane as the 'power plane'.

By way of illustration, let us assume that L is unknown to I at the outset of the time period under consideration, and that these individuals have occasion to interact in a community that has some civic action concern that is not being addressed and that will not be addressed by municipal officials in the absence of an intervening force. More specifically, suppose L and I both have young children and have recently moved into an urban residential neighbourhood that is experiencing an influx of young families. Many existing residents are older with grown children. The neighbourhood has a municipal park that has decades-old playground equipment that is

largely unused and has fallen into disrepair. L and I meet one day at the park while with their children and in the course of conversation lament the age, safety and lack of variety of the play equipment. I seems to accept the situation as it stands, observing that property taxes are already high and that getting civic funds for an equipment upgrade is likely a big challenge, but also saying that 'it would be nice if somebody did something about this.' L declares that she will approach their city councillor about upgrading.

The city councillor agrees to investigate, but ultimately responds that there are no funds in the budget that can be allocated to the park; the children will have to make do with the existing equipment. L conveys this response to I, who is resigned to the situation. L, however, decides that the councillor's response is unacceptable and begins to initiate action with the goal of replacing, upgrading and expanding the equipment. She does research into municipal by-laws regarding parks and play equipment, associated budgets, types of play equipment that can be purchased, distributors, and community funding options and opportunities. She then convenes a meeting of interested parents to discuss and to generate action.

The origin of the three axes in Figure 1 shows no (0) meaningful challenges to the status quo and no personal or positional power as of time t_0 as perceived by I with respect to L (this would be the case when they had just met). By time t_1 L is perceived by I to have made a number of challenges (say about five). For example, L demonstrates to I that she is unwilling to simply accept the situation as it currently exists – she commits to a discussion with their councillor. Despite a rejection from the councillor, L pursues research and then convenes a meeting to provide context to other parents and to try to initiate community support and action. Perceiving these meaningful (to her) challenges will likely be causing I to be experiencing some induced forces due to restructuring of the situation as she now sees it, with perhaps some associated psychological locomotion against the prevailing forces of the status quo or system with respect to the civic action concern. For example, where I previously was resigned to the situation, perceiving a region of activity and goal (getting new equipment) to have a positive valence but with intervening barriers (e.g., funding) and intermediate regions with negative valence (e.g., dealing with a resistive councillor) on the path between the current region (continue using old equipment) and the goal region (getting new equipment), she now sees some opportunity to challenge the current state with the help of others and perhaps replace and expand the equipment.

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L's unwillingness to concede defeat to the councillor would likely induce a negative feeling in I towards the councillor (negative valence) and a positive feeling towards L (positive valence), driving I to avoid the region of activity 'dealing with the councillor' and to seek and support alternative positive valence routes to getting the equipment (e.g., supporting L's various efforts, and canvassing for community funding), all further strengthening alignment against/challenges to the prevailing forces of the status quo (no funding, no changes). L has also likely accrued some degree of related personal power (positive valence) as seen by I, given her communicative and physical acts. All these developments are marked by movement along both the x and y axes to point t_1 (note for the moment that L has no positional power with respect to I).

By time t_2, L has made a cumulative total of nine challenges as perceived by I (i.e., four more since t_1, increasing along the y-axis), with an associated increase in accrued personal power along the x-axis, moving to point t_2 in the diagram (again, no positional power at this point). For example, suppose that through additional research L has found that if a neighbourhood group is able to raise funds for the equipment the city will provide matching funds, up to some limit. As well, contingent on a successful fundraising campaign, L has negotiated a substantial discount to the purchase and installation cost with a new entrant into the play equipment market, who sees this as an opportunity to showcase their equipment with the potential for business elsewhere in the municipality. L has reconvened the parents' group to update them on her research and negotiations and with a proposal for a community fundraising effort. We would expect that I is experiencing stronger induced forces aligning her against the status quo, given the additional meaningful challenges and associated restructuring of the situation as perceived by L's communicative and physical acts, e.g., creating a new region of activity, fundraising, with a positive valence, and reducing the funding barrier through opportunities for matching civic funds and obtaining a supplier discount.

By time t_3, L has made a cumulative total of fourteen challenges with an attendant increase in personal power, moving to point t_3, and again, I is likely experiencing additional induced forces to challenge. We then have no movement as of times t_4 or t_5 – no meaningful challenges perceived by I, and thus no accrual of personal power (and still no positional power). By t_6, however, I perceives L to have made one more challenge, for a cumulative total of fifteen, and this challenge is significant enough to I that she perceives L's personal power to increase

significantly, as shown by a large movement along the x-axis. For the sake of argument, let us also inject here the added dimension that L has been elected to an 'official' position as formal Chair and spokesperson for the parents' group, conferring on her some degree of positional power with respect to other group members, including I. Thus point t_6 has a z-axis component; unlike the previous points, it has moved from the x-y plane into the third dimension of the diagram. Thus we would expect that L has emerged as a leader in the perception of I (and others). L's effectiveness as a leader may become evident over time if she is able to align this collective to act to achieve the play equipment goal, e.g., raise sufficient community funds, get the matching civic funds, complete a purchase and delivery contract with the equipment distributor, etc.

We will refer to a line drawn from the origin to each of points t_1, t_2, and so on in the diagram as L's 'leadership vector' (LV) as perceived by I as of time t_n. Projecting LV onto the y-axis tells us how many meaningful challenges L has made as perceived by I as of time t_n. More significantly, projecting LV onto the x-z 'power plane' tells us how much legitimate power L has accrued as of t_n as perceived by I. Drawing a line from the origin to the point of projection on the power plane gives us L's 'power vector' (PV). The power vector has the following significance.

Recall that in discussion of group standards we noted Lewin's claim that "the group level is not merely a level of equilibrium resulting from whatever forces … the circumstances provide. Frequently this level itself acquires a value. It becomes a positive valence corresponding to a central force field with the force $f_{P,L}$ keeping the individual in line with the standards of the group." (Lewin, 1947, 1(1), p.33) By analogy, we will claim that L's power vector acquires a positive valence corresponding to a central force field. Once I perceives L to have acquired sufficient power (measured by a power vector of magnitude > 0), and L is operating in some region of activity of concern to I in which L is perceived by I to possess power, L will be able to induce a force on I to act in concert with L's declarations, requests and other actions in that region of activity based on L's power with respect to I, rather than having to rely on meaningful challenges alone.[5] For example, I might voluntarily suspend her judgment in favour of L's

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[5] Note that L could also acquire a power vector with a negative valence, by consistently performing communicative or physical acts that I is opposed to, thus accumulating negative personal authority, or by acquiring and applying positional authority in ways to which I is opposed.

judgment in some cases (unlike in an organizational or other behaviour setting, where one may involuntarily suspend judgment to one's boss because of her positional authority to override). Or I might respond much more readily to requests and declarations made by L that she would not have acted on prior to L accruing perceived power. In our example, L would likely accrue power (i.e., a power vector with positive valence) arising from her sustained actions to initiate and organize efforts to replace the play equipment, which others would then respond to independently of any on-going challenges she might initiate.

Note that I's perception that L has acquired power is a subjective judgment. What might influence this assessment? It might be quantity of challenges/resistances, or quality, or some combination of the two sufficient to shift I's perception. We should also note that individuals tend to be subject to a cognitive bias known as 'the law of small numbers' predisposing us to believe that small samples closely resemble the population from which they are drawn (Kahneman, 2011, pp.109-118).

Possession of a power vector by L represents the accrual of *potential* power. French has defined power as a differential force: "The power of A over B (with respect to a given opinion) is equal to the maximum force which A can induce on B minus the maximum resisting force which B can mobilize in the opposite direction." (French, 1956, p.183) The application of this differential force represents *kinetic* power. The use of positional power to direct others or of personal power to influence others is kinetic power. (French and Raven in Cartwright, 1959, p.152)   It is obvious that the kinetic power that can be applied is less than or equal to the potential power accrued.

Potential power can be diminished as well as accrued. For example, if L engages in acts of challenge or resistance that are perceived by I to be non-meaningful or perhaps even detrimental to the concerns at hand, I may perceive L to have diminished potential power. As well, if L applies his kinetic power arbitrarily or disrespectfully, we might expect his perceived potential power to diminish. In both cases L's power vector will shrink in magnitude, as will his leadership vector. However, unlike in the application of physical kinetic energy and associated

physical power, where invocation of kinetic energy diminishes the potential energy accrued[6], the use of kinetic leadership power does not equate with the diminishment of potential leadership power. L can use his kinetic power while retaining or even enhancing associated potential power (through wisely-perceived use) or can also diminish it (through poorly-perceived use).

Note that the greater the angle the leadership vector LV departs from the y-axis, the stronger is the perceived leadership of L by I. One might engage in many meaningful but 'small' challenges as perceived by others, and thus be perceived as a leader with relatively little power – weak leadership (a leadership vector close to the y-axis). Or one might engage in a few meaningful challenges that are perceived as very significant, acquiring commensurately significant personal power and be thus perceived as a strong leader (a leadership vector close to the x-axis). The strongest leadership would be exhibited by those vectors in the (x,y,z) space with some y-component in conjunction with large x and z components, i.e., some number of significant meaningful challenges (or resistances to challenges) to the status/quo or system with the associated accumulation of significant personal and positional power. The magnitude of the power vector measures and indicates leadership strength, not the magnitude of the leadership vector.

Examining the boundary conditions of the (x,y,z) space with respect to LV, we find two anomalies worth noting. If LV is coincident with the y-axis, then L has a PV of 0, i.e., L has meaningfully challenged, or resisted challenges to, the status quo or system without accruing any personal or positional power. Is this feasible? Certainly L might be meaningfully challenging or resisting without positional power in the domain of concern. However, one would expect some accrual of personal power over time. A situation where this might be impeded would be a series of meaningful challenges by L over time as perceived by I, but I does not respect L because of other actions L has taken historically in this domain of concern (or others). L may thus have acquired a power vector with a negative valence previously as perceived by I, and any accrual of personal power given current well-perceived actions might be offset by this existing negative PV. It may take many more meaningful acts over a longer period of time to accrue a positive

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[6] Think of a child on a swing – potential and kinetic energies alternately increase and decrease in opposite directions, so that maximum potential energy at the top of a swing cycle is coincident with minimum kinetic energy at that point, while maximum kinetic energy at the bottom of a swing cycle is coincident with minimum potential energy at that point.

power vector, or it may not happen at all. Until then, L will have no leadership strength as perceived by I.

A second anomaly is the scenario of LV and PV coincident in the x-z power plane, i.e., L has accrued legitimate power but without accruing any meaningful challenges or resistances over time. Is this feasible? Again, one could certainly have positional power in a domain of concern without having taken any actions perceived to be meaningful challenges or resistances in that domain, for example a corporate executive maintaining the status quo. If L has not taken any such actions, his positional power might be perceived by I to be present (potential power) but weak with respect to the concerns at hand, until he takes meaningful action (perceived weak leadership). One might also be seen to have personal power absent any actions, through a halo effect (Luthans, 1981, pp.105-6; Kahneman, 2011, pp.82-5; closely related to 'the law of small numbers'). The halo error in social perception predisposes I to perceive L based on a particular trait that overrides all other traits in perceiving L. In this case I might perceive L's PV valence in another domain to carry over into the current domain of concern. One would expect this PV to increase or decrease over time as perceived by I dependent on L's ensuing actions (or lack of action).

In the discussion of Lewin's theory we introduced the concepts of unfreezing, moving and freezing with respect to change. "A successful change includes … three aspects: unfreezing (if necessary) the present level L^1, moving to a new level L^2, and freezing group life on the new level. Since any level is determined by a force field, permanency implies that the new force field is made relatively secure against change." (Lewin, 1947, 1(1), p.35) Much leadership, but not all, involves unfreezing, moving and freezing, and not all unfreezing, moving and freezing is necessarily leadership.

As we have seen, leadership requires sustained application of forces over time that overcome or bolster system/status quo counterforces that are trying to maintain equilibrium. In the case of sustained challenges to the system or status quo, these may be exerted with the intent of unfreezing the frozen system to enable movement and refreezing (e.g., Gandhi aligning a collective to challenge the British colonial system in India over decades so as to unfreeze it and facilitate movement to a new system of self-government – see, for example, Haksar, 2003). Another scenario is that the system becomes unfrozen for other reasons, and this provides an

opportunity for sustained challenges to the unfrozen system to move it – the system stabilizers have been weakened and the power of the leader is now sufficient to overcome the weakened stabilizers, where perhaps the leader's power was insufficient to overcome the system stabilizers before the unfreezing event (e.g., U.S. President Roosevelt subsequent to the Japanese bombing of Pearl Harbor on December 7th, 1941, which unfroze the isolationist mentality in the American population, enabling Roosevelt to align the necessary collective to be able to declare war and bring the U.S. into action on the side of Britain/Churchill and the Allies, which he had been unable to do in the face of popular and Congressional opposition up to that point – see, for example, Roberts, 2003).

In contrast, a change of habit such as how one makes up one's bed (say using 'hospital corners' vs. not) requires unfreezing, moving and freezing behaviours but likely would not be seen as an act of leadership on the part of the one who teaches the new technique as perceived by the one changing his habit. It would more likely be seen as a 'one-shot' (perhaps somewhat meaningful) challenge to a well-established and stable behaviour setting – making one's bed – requiring some practice to master. The behaviour setting remains largely intact with a minor change in technique resulting from a single challenge.

Moreover, some leadership, as we have argued, is about bolstering system forces or the status quo against challenging forces that threaten to overwhelm, which is, in effect, ***resisting and attempting to prevent*** unfreezing. Unfreezing, moving and freezing in this case would likely be seen as a ***failure*** of leadership. Churchill's leadership at the outset of WWII was largely about aligning the British people to resist the Nazi's efforts to unfreeze Britain's political, economic and social systems which, had the Axis powers won the war, would very likely have been followed by the application of coercive force to move and freeze the British way of life to be subject to a totalitarian regime.

We have been focusing so far on the emergence dimension of the leadership phenomenon; a few observations on leadership effectiveness are in order at this point. Recall that Judge et al make the following distinctions between emergence and effectiveness: "… leadership emergence identifies the factors associated with someone being perceived as leaderlike … leader emergence refers to whether (or to what degree) an individual is viewed as a leader by others, who typically have only limited information about that individual's performance. In contrast to being perceived

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as a leader, leadership effectiveness refers to a leader's performance in influencing and guiding the activities of his or her unit toward achievement of its goals …" (Judge et al, 2002, p.767) If through some number of meaningful challenges or resistances L has accrued a leadership vector and an associated power vector with magnitude greater than 0 (positive valence) as perceived by I, then L has emerged as a leader as perceived by I. L has likely induced some psychological locomotion in I consequent to the acts of challenge or resistance, as well as accruing potential power that can be converted to kinetic power by which L could also apply additional force to align I further in service of the challenge or resistance (e.g., making specific requests of I to act in service of the challenge). Leadership emergence thus involves unfreezing as needed as well as some degree of movement.

Leadership effectiveness can be seen as advancing along the continuum, moving the collective against or in favour of system stabilizers and then freezing at a new equilibrium. L must continue to induce forces in the collective by virtue of sustained meaningful challenges/resistance to challenges to the status quo or system, as well as sustained application of accrued potential power to further align the collective in service of these challenges/resistances, until the system/status quo stabilizers have been overcome, or until they have been bolstered and reinforced, depending on the situation at hand.   Freezing, i.e., stabilizing the change at a new level of equilibrium, would likely comprise the implementation of an organization and associated processes and practices over time (or refinement of an existing organization, processes and practices) to institutionalize and reify the new status quo or system, or to reinforce the existing status quo/system, to ensure that it is stable and sustainable.

We can now surmise how so-called 'leadership roles' might evolve and come into existence. Once L has successfully challenged or defended the system, the collective might deem it of value to establish an institutional role and confer positional authority on L to ensure that on-going stability is maintained, a role that L would be perceived to have earned by virtue of her meaningful acts and associated accrual of power up to this point. Thus the leadership role would seem to logically arise *consequent* to emergence of the phenomenon, and not the reverse; as we have argued, leadership should not be assumed to be present simply because of the designation of the role.

We would suggest that the institutionalization and reification of so-called 'leadership roles' may explain why organizational leadership research and literature have focused on exchange mechanisms, style and traits. Since there is an assumption that leadership is somehow embedded in these roles, little if any attention is paid to emergence of the phenomenon; the focus is rather on how to get staff to act in concert with managerial direction, i.e., how to increase effectiveness. Managers have positional power to coercively direct their staff ("extrinsic motivation"), but they also strive to acquire personal power that compels their staff to act in concert with their direction by choice ("intrinsic motivation"). Staff who are driven intrinsically would presumably be more proactive, require less managerial oversight, be more cooperative and thus would be expected to put less burden on their managers, enabling these managers to spend their time productively on individual contributor tasks in addition to management. However, this is a focus on managerial effectiveness – striving to increase work effectiveness in an organizational system while maintaining quasi-stationary equilibrium – not leadership effectiveness as discussed above.

We can extrapolate the leadership model as illustrated in Figure 1 and apply it to the collective of concern.
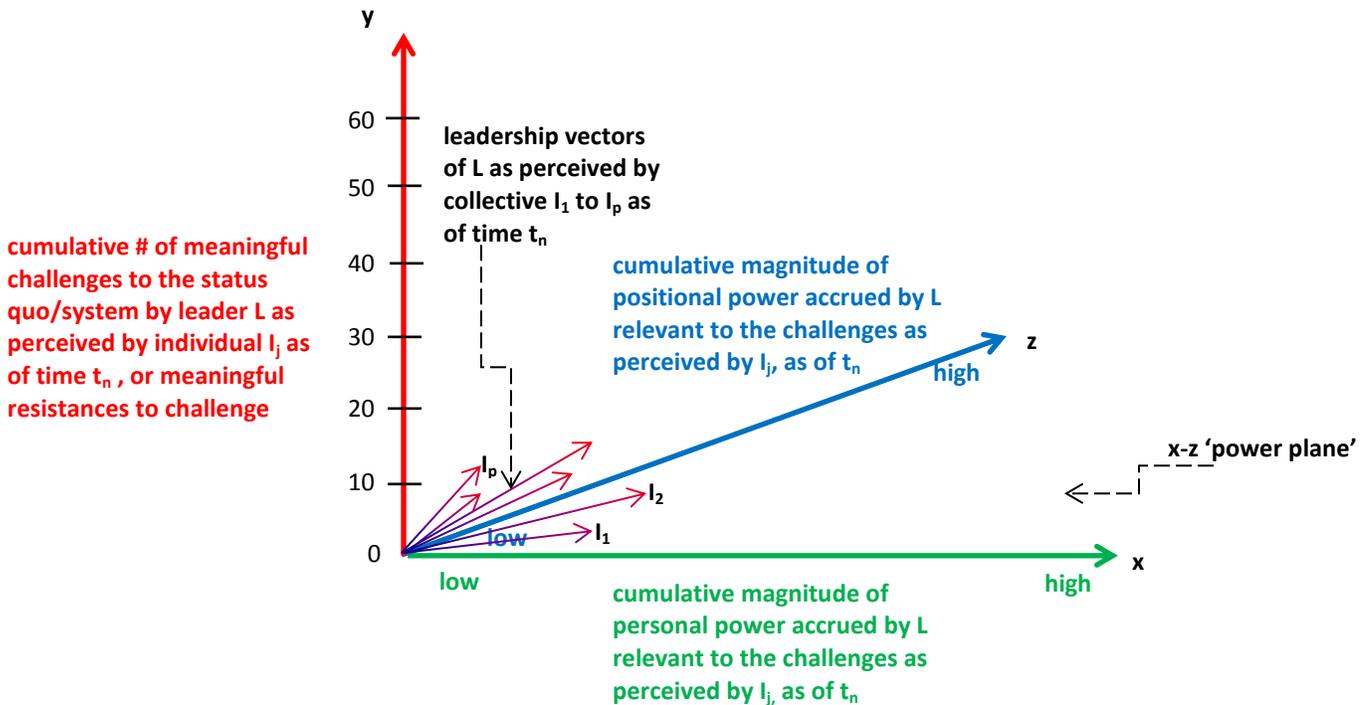
Figure 2: Dimensions of leadership emergence as perceived by a collective as of time t_n

Figure 2 shows the leadership vectors of leader L as perceived by a collective of individuals I_1 to I_p at a time t_n. According to Lewin's theory we can narrow our focus on the dynamics of change in a group situation to analysis of a specific property/factor, or a few properties/factors, in a social field that are of meaningful concern (i.e., regions of activity with particular valences) to the group members, and explore the conditions under which the valences and associated distribution of forces might be shifted with respect such properties. Thus meaningful challenges to the status quo/system here means a focus on one or a few issues of shared concern to the group. The diagram has the same axes as in Figure 1, but here we are showing a snapshot of the leadership vectors of a group of individuals as of time t_n. Each of these individuals will perceive power (represented by an associated power vector in the x-z plane that acts as a central force field) through which L will be able to align members of the collective in regions of activity relevant to their shared concern(s), where L is present.

By analogy and for comparison, we can visualize management using the following diagram:
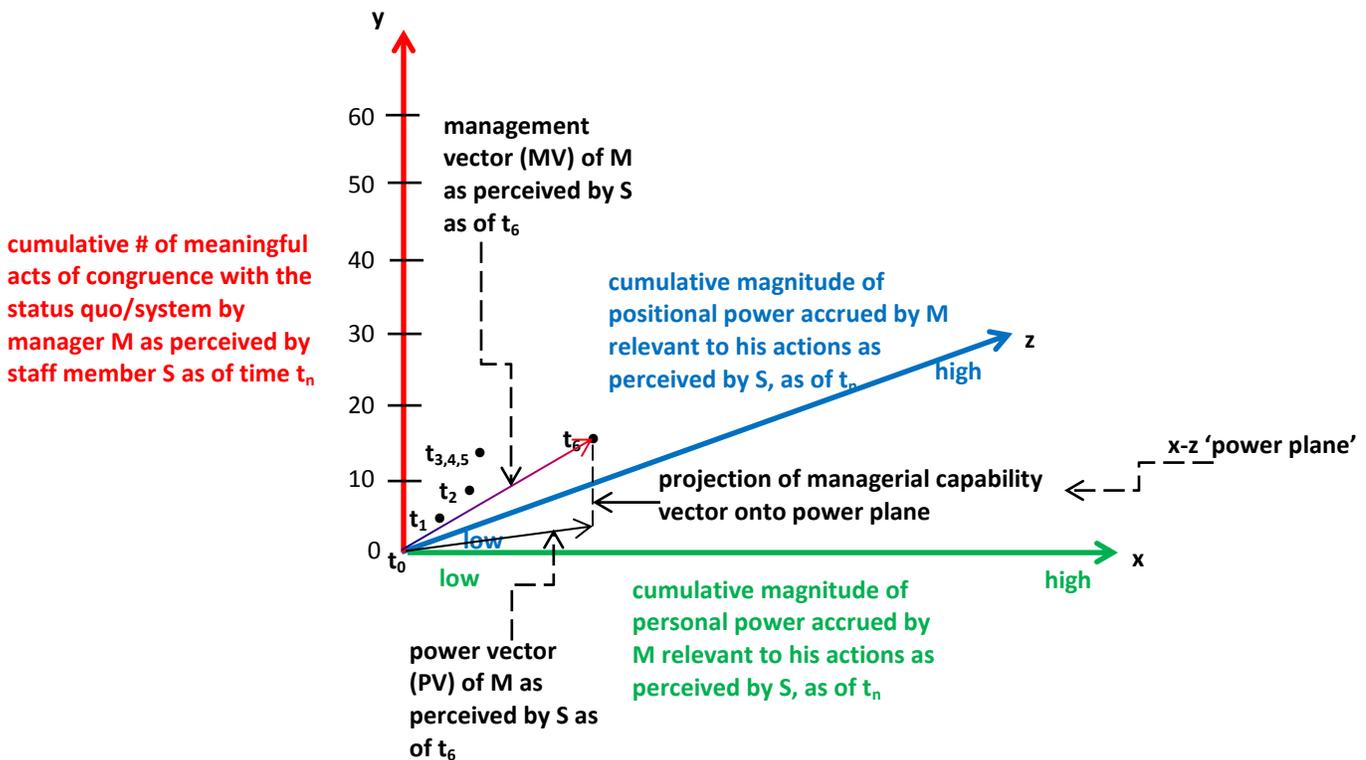
Figure 3: Dimensions of managerial capability as perceived by an individual over time

In the case of a manager, meaningful challenges are replaced by meaningful acts of congruence with the status quo/system. The manager 'M' similarly is able to accumulate such acts as well as accrue commensurate personal and positional power as perceived by staff member 'S'. M will have a management vector MV and a power vector PV as perceived by S as of time t_n. Stronger management will again be represented by those vectors in the (x,y,z) space with some y-component in conjunction with large x and z components. A manager can operate in both the management and leadership spaces but, as mentioned earlier, organizational systems by their nature are designed to suppress challenges to the status quo/system, as well as tampering to bolster their stabilizers, and thus are generally not conducive to supporting the emergence of the leadership phenomenon. Similarly, a leader may also act in the management space to stabilize what has been accomplished by the collective through challenge or resistance (as discussed earlier, stabilizing the new system and maintaining a new equilibrium through freezing is essential to sustaining what leadership has wrought, whether by the leader or others).

In summary:

Leadership would be predicted to <u>emerge</u> if individuals $I_1, ..., I_p$ in a collective C (n members in C, n > 0; p ≤ n) perceive:

a) some number (>0) of meaningful challenges to the status quo or system by an entity L over a sustained period of time, relevant to a shared concern(s), combined with the associated accrual by L of power vectors with valences > 0; or,

b) some number (>0) of meaningful resistances to challenges to the status quo or system by an entity L over a sustained period of time, relevant to a shared concern(s), combined with the associated accrual by L of power vectors with valences > 0.

This means that:

1) If either a) or b) is perceived then we would predict that leadership will be seen to emerge; and,

2) If leadership is seen to emerge then we would predict that either a) or b) has been perceived.

Leadership would be predicted to be <u>effective</u> if, following emergence, individuals in a collective perceive:

c) on-going meaningful challenges to the status quo or system by L over a continuing period of time, relevant to a shared concern(s), combined with the associated continuing accrual as well as application of legitimate power by L sufficient to align the collective to overcome opposing stabilizing forces, and creation of a new status quo/system and equilibrium; or,

d) on-going meaningful resistances to challenges to the status quo or system by L over a continuing period of time, relevant to a shared concern(s), combined with the associated continuing accrual as well as application of legitimate power by L sufficient to align the collective to bolster stabilizing forces that would otherwise be overcome by the challenging forces, thereby consolidating the status quo/system and equilibrium.

This means that:

3) If either c) or d) is perceived then we would predict leadership will be seen to be effective; and,

4) If leadership is seen to be effective then we would predict that either c) or d) has been perceived.

3. Hypothesis Development

3.1 Narrowing the focus

Our choice to depart from existing leadership theories given the challenges discussed earlier necessitated development of a different perspective on the leadership phenomenon. The field theory presented provides an alternative general explanation of leadership emergence and effectiveness that offers many opportunities for exploration and testing. We chose to narrow our focus to an investigation of leadership emergence as postulated in the theory. In particular, our research aimed specifically to:

i) explore whether there is evidence for a causal linkage between meaningful challenges to a status quo and perceptions of leadership emergence; and,

ii) explore whether there is evidence that perceived acts of leadership are characterized by meaningful challenge, or meaningful resistance to challenge, to a status quo.

3.2 Clarifying 'meaningful challenge'

The concept of meaningful challenge was introduced and discussed to some extent in the theory development. Here we define it more rigorously.

> Meaningful challenge: application of psychological forces, through communicative and/or physical acts, that disturb the prevailing forces in a group situation in a non-coercive way (as perceived by group members) such that the members perceive the situation differently and are induced to change the quasi-stationary equilibrium state. These communicative/physical acts may induce or adjust psychological forces or otherwise change the immediate psychological situation and associated forces for individuals in a variety of ways, e.g.:

> > i) create a positive valence for a region of activity that was previously perceived to have a negative or zero valence by individuals in the group, thereby inducing these individuals to move to that region of activity

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ii) remove a psychological barrier to entering a region of activity, e.g., by legitimizing a conversation or facilitating an action that was previously perceived to be prohibited or prohibitive

iii) create a new region of activity with a positive valence that was not previously present or evident

iv) reframe a situation within a region of activity, such that individuals choose to take a different action in that region than they otherwise would have taken previously, e.g., change their voting preference, or respond affirmatively to a request or directive

v) bring attention to a region of activity that individuals perceive has a negative valence, thereby inducing or amplifying a negative feeling in those individuals with regard to that region so that they are moved to avoid it or to align to challenge/change it

vi) reframe an existing situation and a number of regions of activity or entire lifespace, thereby precipitating some or all of the above, for example by articulating an attractive (or repulsive) direction or opportunity that others may have previously sensed but not explicitly realized or understood, e.g., Martin Luther King's 'I have a dream' speech envisioning his children judged by the content of their character not the colour of their skin (positive/attractive), and militating against racism and inequity (negative/repulsive)

Meaningful resistance to challenge would be defined analogously, but with the intent of bolstering the prevailing forces in a group situation in a non-coercive way (as perceived by group members) such that the situation maintains its quasi-stationary equilibrium state.

For completeness, we identify two other possible categories of challenge:

➢ A destructive challenge would be defined similarly, but the changes would be perceived to be unwanted, e.g., the region of activity to which the individuals move would have a perceived negative valence and the individuals would be

driven there consequent to an unwelcome induced force that exceeds the force induced by the negative valence, or barriers would be imposed blocking entry to desired regions, and so on. We would not expect this to be seen as leading, but rather as an unwanted coercive force.

➢ Another category might be 'non-meaningful challenge', which would, for example, create a perceived zero valence for a region of activity. Again, we would not expect this to be seen as leading – non-meaningful challenge would presumably induce no forces in others.

3.3 Hypotheses

We formulated two hypotheses to test the proposed theory.

Hypothesis 1: An individual who meaningfully challenges the status quo more strongly than another over time will be perceived to be a stronger leader (in situations where the system is in quasi-stationary equilibrium, i.e., the status quo is not being challenged with a threat of disruption or overthrow).

[Special case: an individual who meaningfully challenges the status quo over time will be perceived to be a stronger leader than one who maintains the status quo.]

Hypothesis 2. Individuals who are asked to recount in some detail specific acts of leadership they have experienced will share the unique common thread of perceiving another individual (or individuals) meaningfully challenging the status quo or system with respect to an issue of concern over a sustained period, or meaningfully resisting challenges to the status quo or system, with the associated perceived accrual of power by those challenging or resisting.

3.4 Rationale for hypotheses

Hypothesis 1: Meaningful challenge happens through communicative and/or physical acts. Thus we would expect leaders to show up differently than others through their language and actions, i.e., those individuals perceived as leading would be predicted to exhibit a different pattern of communicative and/or physical acts than other individuals. More specifically, if L is meaningfully challenging the status quo more strongly than M then L would be expected to

consistently invoke communicative and/or physical acts that others perceive (positively) to be more strongly disruptive/challenging to the current state than those invoked by M.

Hypothesis 2: Meaningful challenge is the application of psychological forces, through communicative and/or physical acts as perceived (positively) by some individuals, that disturb the prevailing forces in a group situation such that the situation does not regain its previous equilibrium state. Meaningful resistance to challenge is similarly the application of psychological forces to bolster the prevailing forces in a group situation, which would otherwise be overwhelmed, thus preventing the equilibrium state from being disturbed or restoring the equilibrium that has been disturbed (and, again, perceived positively by some individuals in the group).

Thus we would predict that an individual I recounting specific acts of leadership he has experienced by an entity L will describe L as invoking communicative and/or physical acts that were perceived to meaningfully challenge the status quo and disturb an existing equilibrium to create a new state, or were perceived to meaningfully resist challenges to the status quo and maintain the existing equilibrium against otherwise overwhelming forces, more strongly than non-leaders or weaker leaders.

4. Studies

4.1 Overview of Studies

Five studies were conducted to test the hypotheses outlined above.

Studies 1, 2, and 3 focused on Hypothesis 1 (stronger meaningful challenges to the status quo causes perceived stronger leadership) and were comprised of a series of investigations with respect to the emergence of leadership via a speech (i.e., specific communicative acts), as perceived by individuals reading a text of the speech. First, an experiment was conducted in which two independent groups of randomly selected respondents each read a speech and answered a series of questions about their perceptions of the 'speaker'. The speeches were very similar in content (two versions derived from the same original speech). One version was designed with the intent of challenging the status quo with respect to an issue of common concern more strongly than the other version. The experimental objective was to see whether the respondents discerned stronger leadership emergent in the so-called 'challenge' version than in the 'flat' version and, if so, whether this perception was due to the effect of particular passages on the readers that somehow meaningfully challenged the status quo more strongly over the course of the speech. The experiment revealed a statistically significant difference in perceptions of leadership between the two versions of the speech. Subsequent studies and analyses were then conducted to further verify this perceived difference and to determine precisely what the difference was between the two versions of the speech that caused the difference in perception regarding leadership.[7]

Studies 4 and 5 focused on Hypothesis 2 (descriptions of acts of leadership will invoke meaningful challenge or resistance to a status quo) and were comprised of a series of surveys about perceived acts of leadership, conducted with a random selection of several groups of

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[7] In a preliminary study, the two speeches were delivered to two randomly selected groups of different individuals using computerized voices, one male, one female. We attempted to choose 'neutral' voices, i.e., limited emotional expressions, 'normal' range of tones, similar speed and cadence, and used the same female or male voice to read each speech. While we expected the voices chosen not to have an effect on the listeners' perceptions of leadership emergence, they in fact did – listeners perceived stronger leadership in the 'challenge' speech vs. the 'flat' in the case of the man's voice, but not the woman's. Interestingly as well, this perception was reported by both male and female participants in the study. Thus use of a voice to deliver the speeches introduced another variable, so we chose to eliminate this dimension in the subsequent study, so that the only manipulation was the content of the speech. However, our preliminary results regarding the impact of gender (perceived by voice or otherwise) on the perception of leadership emergence provides a further interesting and important research question to pursue.

individuals in a broad variety of roles and endeavours, with the intent of discovering whether people perceived by the survey respondents to have demonstrated acts of leadership were seen uniquely in common to have exhibited communicative and/or physical acts that meaningfully (to the interviewee) challenged, or resisted challenge to, the status quo or system over some time period.

4.2 Study 1 – Speeches Experiment

4.2.1 Purpose

To establish a causal relationship between sustained meaningful challenges and the perceived emergence of leadership.

4.2.2 Stimulus Selection

The stimulus in the experiment was a series of communicative acts in the form of a speech. As discussed earlier, perceptions of leadership in various domains – whether corporate, political, military, religious and so on – often seem to emerge or to be enhanced based on communicative acts on the part of an individual. This observation led us to use a speech as the basis to explore leadership emergence.

The requirements for the speech were that it:

i)   address a topic of common concern so as to offer the opportunity for meaningful challenges to be presented to a random collective (without the need for respondents to possess specific expertise to understand the situations discussed in the speech);

ii)   be relatively short so as to maintain the attention of respondents, minimize the introduction of too much variety of content and thus variability in data being manipulated, and facilitate unambiguous analysis;

iii)   be long enough to contain sustained challenges over the course of its length (one or two challenges were deemed likely insufficient to build a perception of leadership); and,

iv)   not be easily recognizable by most respondents, to avoid reactive measurement effects (e.g., Martin Luther King's 'I have a dream' speech that would likely be recognized and attributions of leadership made by virtue of knowledge of the speaker rather than arising specifically from the content alone).

The candidate speech chosen is from the final scene of Charlie Chaplin's 1940 film 'The Great Dictator', a biting and thinly-veiled satire criticizing and lampooning the fascist movements of the time, most particularly Hitler and Germany's Nazi government. The speech as delivered by Chaplin is approximately 3.5 minutes long, and contains a number of rousing critiques and challenges of fascist ideologies and regimes. Thus it meets criteria i), ii) and iii), and our assumption was that it likely would not be a film that many respondents would have seen, satisfying iv) (and this was further verified in our survey questionnaire).

The original speech was slightly modified to ensure that the content was generic and suitable for a contemporary audience – some introductory lines were removed, and references to "radio", for example, were replaced by "internet". This version became Speech 2 – the 'challenge' version. This challenge version was then edited further to tone down or 'flatten' those passages that seemed to be invoking challenges to the status quo/system, converting some to platitudes and making others more banal while maintaining essentially the same content. This then became Speech 1 – the 'flat' version. The complete texts of the two speeches are shown below.

> **Speech 1: Flat** – edited transcript of Charlie Chaplin's final speech in ***The Great Dictator***
>
> *People want to help one another. People are like that. They want themselves and others to be happy - not unhappy. They don't want to be at odds with, and upset, one another. The world has room for everyone. The earth is good and rich and can provide for everyone. People can be free and life can be beautiful.*
>
> *Greed can negatively affect people. It can cause inequality and envy, unhappiness and conflict. Technology can give people speed, and can also isolate them. Machinery that gives abundance can also leave people in want. More knowledge sometimes seems to result in cynicism. More cleverness sometimes seems to result in more hardness and unkindness. People sometimes think too much and feel too little. People can be more kind, gentle, and caring, not just happy with the benefits of technology and being clever. With these qualities, life can be more rewarding, less violent, and generally improved.*

The airplane and the internet have brought people closer together. These technologies and systems can be used to bring out the goodness in people - for bringing unity, benefits, and more freedom. However, they can also be used for undesirable ends that hurt others.

People can strive to be optimistic. Progress is always possible if everyone is willing to work together and not be greedy. People without good intentions usually don't succeed in the long run. Most people have good intentions, and so the majority can succeed if they want to work at it.

People who have good intentions can direct things to everyone's benefit. People who don't care, who are greedy, who want to take advantage, who like conflict, who want to use technology only to their own advantage, don't do this. Those who believe in the goodness of humanity can build healthy relations with others and thereby help to improve the lot of all people.

A proverb says that "the divine is within man" – not one man or a group of men, but in all women and men. Men and women are generally good, creative, and want to be free, have good work and have great adventures. Society can have institutions and technology that enable and support this.

Democracy enables us to use human power to cooperate together to have a decent world that will give everyone a chance to work, to be free, to be happy – whether young, or old. Non-democratic approaches promise these things, and sometimes non-democratic individuals get power, but this doesn't work sustainably and never will work the way it should. Non-democratic people often don't tell the truth, and often don't keep their promises.

Non-democratic governments tend to help themselves, but they tend not to help their citizens. People can make sure that democracy is successful for everyone, here and elsewhere in the world, to increase good for all. People can strive to be reasonable, to use science and progress to do things that help all to be happy and to work against things that don't. That way, democracy can succeed.

Speech 2: **Challenge** – edited transcript of Charlie Chaplin's final speech in *The Great Dictator*

We all want to help one another. People are like that. We want to live by each other's happiness - not by each other's misery. We don't want to hate and despise one another. The world has room for everyone. And the good earth is rich and can provide for everyone. Life can be free and beautiful, but we have lost the way.

Greed has poisoned people's souls, has barricaded the world with hate, has goose-stepped us into misery and bloodshed. We have developed speed, but we have shut ourselves in. Machinery that gives abundance has left us in want. Our knowledge has made us cynical. Our cleverness, hard and unkind. We think too much and feel too little. More than machinery and technology we need humanity. More than cleverness we need kindness and gentleness. Without these qualities, life will be uncaring and violent and all will be lost.

The airplane and the internet have brought us closer together. The very nature of these inventions cries out for the goodness in people - cries out for universal brotherhood and sisterhood. Yet millions of despairing men, women, and little children are victims of systems and enforcers that diminish, neglect, imprison and torture innocent people.

I say: do not despair. The misery that is now upon us is but the passing of greed - the bitterness of those who fear human progress. The hate will pass, dictators will be overthrown and die, and the power they took from the people will return to the people. And so long as we are willing to fight and die, liberty will never perish.

People! Don't give yourselves to brutes – men and women who despise you, enslave you, regiment your lives, tell you what to do, what to think and feel! Who drill you, starve you, threaten you, treat you like cattle, use you as cannon fodder. Don't give yourselves to these unnatural souls, with machine minds and machine hearts! You are not machines! You are not cattle! You are people! You have the love of humanity in your hearts! You don't hate! People! Don't fight for slavery! Fight for liberty!

A wise proverb says: "the divine is within man" - not one man nor a group of men, but in all women and men! In you! You, the people have the power - the power to create great technology, useful machines, and strong institutions. The power to create happiness! You, the people, have the power to make this life free and beautiful, to make this life a wonderful adventure.

Then - in the name of democracy - let us use that power - let us all unite. Let us fight for and create a new world - a decent world that will give all men and women a chance to work, to be free, to be happy - that will give youth a future and old age a security. By the promise of these things, brutes have risen to power. But they lie! They do not fulfil that promise. They never will!

Dictators free themselves but they enslave the people! Now let us fight to fulfil that promise! Let us fight to free the world, to do away with barriers, with greed, with hate and intolerance. Let us fight for a world of reason, a world where science and progress will lead to happiness for all. People! In the name of democracy, let us all unite!

4.2.3 Procedure

Two independent groups of randomly selected test participants were chosen through the use of Amazon's Mechanical Turk (MTurk) service that provides an on-line marketplace for individuals to participate in performing a variety of tasks, including responding to questionnaires and surveys. A request was made for two groups of 60 different respondents each, half men and half women, to participate in an "impression study" regarding a speech. The actual numbers of respondents in each group as randomly assigned by MTurk were:

Speech 1 ('flat'): 55 total respondents, 25 female, 30 male

Speech 2 ('challenge'): 67 total respondents, 35 female, 31 male (one respondent did not specify gender)

The first group received Speech 1 to assess and the second group Speech 2. The respondents each completed a questionnaire implemented through the on-line survey platform SurveyGizmo. The questionnaire is shown in Appendix 1 along with an explanation of the rationale for the questions and sequencing. The questions first explore whether respondents invoke the word

'leader', without prompting, to describe the 'speaker', and then ask directly how strongly they would rate the speaker on a leadership scale and to what extent they are 'moved' by the speech (to get a sense of any psychological locomotion they might be experiencing). One question is also devoted to discerning how strongly respondents perceive the four transformational leadership dimensions in the speaker.

Note: MTurk and SurveyGizmo were used in the design and execution of all subsequent studies discussed below. Respondents in each study were a fairly even split of men and women ranging in age from 18 to 74, with diverse occupations and varying degrees of education and income, and with the vast majority distributed geographically across the United States.

4.2.4 Results

Responses to question 2 ('What 3 words or phrases would you use to describe the role of someone who gave this speech?') provide two indicators of difference in perceptions of leadership strength between the two speeches. The first is a count of the number of times participants used the word 'leader' in their responses to this question. The second is a count of how many times they used words 'similar' to leader in their responses (this required a second study, to be discussed below – Study 2).

With respect to use of the word leader to describe the 'speaker', 7 respondents to the 'flat' speech used this descriptor (out of 55 total – about 1/8); in contrast, it was invoked by 23 respondents to the 'challenge' speech (out of 67 total – about 1/3). These preliminary ratios pointed to a difference between the group assessments. A chi-square analysis confirmed a statistically significant difference in use of the word leader between the two groups of respondents (greater use by the 'challenge' respondents): $\chi^2 = 7.4$, $df=1$, $N=122$, $p < .01$

Responses to question 4 ('Where would you rank someone who gave this speech on the following **leadership scale?**') produced a mean value of 3.31 ('moderate' on the Likert scale) for Speech 1 ('flat'), while the mean for Speech 2 ('challenge') was 4.0 ('strong'). There is a statistically significant difference between these means – $t(120) = 4.124$, $p<.001$ – indicating respondents assessed the individual giving the challenge speech to be stronger on the leadership scale than the individual giving the flat speech.

Responses to question 5 ('The extent to which I find this speech **moving**') also showed statistical significance – $t(120) = 1.92$, $p<.057$ – indicating respondents were more moved by the challenge speech.

A correlation analysis of the responses to questions 4 and 5 also revealed a significant relationship between the two sets of results: Pearson's $r = .689$, $N=122$, $p < 0.000$

Survey question 7 assessed the speaker on a Likert scale ranging from 'strongly disagree' to 'strongly agree' with respect to the four transformational leadership dimensions. Respondents did not rank either speaker strongly on any of these transformational dimensions, and they also discerned no significant difference between the speakers on any of these dimensions.

4.2.5 Discussion

A thorough check of responses to questions 1 and 8 indicated that all 122 respondents had indeed read and understood the speech. Very few (4) of these respondents recognized the speech (question 9), one who read Speech 1 and three who read Speech 2. There was no indication that this affected their responses (e.g., while three indicated strong leadership on the scale – one who read Speech 1 and two who read Speech 2 – and one indicated moderate (read Speech 2), only two used the word leader to describe the 'speaker' (both having read Speech 2). Even if there was an effect, the number of respondents who did recognize the speech was too small to affect the overall results.

Analyses of the data compiled from the 122 randomly selected respondents' assessments of the two versions of the speech showed a number of differences: significantly more frequent use of the word 'leader' to describe the 'speaker' of the challenge speech as compared to the flat, higher ratings on the leadership scale and the psychological movement scale for the challenge, and a correlation between the scales, strongly confirming a perceived difference between the two speeches, and in particular in leadership strength between the two 'speakers': the 'challenge' speech speaker is clearly perceived to be a stronger leader than the 'flat' speech speaker. Respondent reports of stronger psychological movement in reading the challenge speech than the flat are also consistent with our expectations regarding the effects of perceived stronger leadership.

Note as well that the sequence of questions was such that the respondents invoked the word 'leader' in describing the 'speaker' without prompting – the question regarding perceived strength on the leadership scale was asked *after* the respondents had indicated what words they would use to describe the speaker, and they could not go back and change their answers to the previous questions once the scale question was posed.

Finally, the intent of question 7 regarding transformational leadership dimensions was to see whether respondents discerned any of these elements in the speakers and, if so, whether there was a difference in perception of any of these dimensions between the two speakers. Respondents did not rank either speaker strongly on any of these, and they also discerned no significant difference between the speakers, despite assessing the 'challenge' speech speaker to be a significantly stronger leader than the 'flat' speech speaker. Thus we would conclude that the transformational leadership construct did not facilitate detection of leadership emergence or distinctions in perceived leadership strength.

A note on the experimental design

The experimental procedure incorporates the following critical features: a manipulated independent variable (varying strengths of meaningful challenges in the speeches: weaker in the flat speech, stronger in the challenge speech) followed by a measured dependent variable (strength of leadership perceived). There are two categories of speeches: one speech demonstrating the experimental treatment (stronger meaningful challenges), and one speech (the control) not receiving the treatment (banalities/platitudes/weaker challenges). The treatment and control speeches have similar content, are of similar length, and are otherwise similar except for the experimental manipulation. Respondent 'reader' groups were formed so as to obtain random diversity as best as possible. Reactive measurement effects were minimized to the extent possible: participants in the experiment were told they were involved in an "impression" study – no indication that the topic was leadership – and there was little likelihood of evaluation apprehension in participating, given the anonymity inherent in the MTurk platform.

A between-group design was chosen rather than a within-group because we felt that assigning a single group to read and assess two similar speeches would place undue burden on participants. Each respondent would have to read and assimilate both speeches, detect and recall similarities

and differences, and answer a series of questions accordingly. Design and execution were warranted cumbersome and unlikely to produce good results.

4.3 Study 2 – Semantic distance: frequency of use of words similar to leader

4.3.1 Purpose

To determine whether there is a significantly greater use of words deemed similar to leader by respondents who read the 'challenge' speech as compared to those who read the 'flat' speech when describing the 'speaker'.

4.3.2 Stimulus Selection

The stimulus was a list of words deemed similar to the word leader.

To determine and compile this list, we again reviewed responses to question 2 in Study 1 ('What 3 words or phrases would you use to describe the role of someone who gave this speech?') but in this case only for those respondents who had ranked the 'speaker' as 'strong' or 'very strong' on the leadership scale (question 4). These respondents were chosen because it was reasonably assumed that, given their assessment of leadership strength as indicated by their responses to the scale question, they would be most likely to be using associated words to describe the speaker, while those who scored the speaker low on this scale would likely not. The words/phrases so determined (119 different descriptors in total) are shown in Table 1 (the complete list from respondents to each speech is shown in Appendix 2). Those descriptors in blue are unique to the flat speech speaker, those in red are unique to the challenge speech speaker, and those in green were used to describe both speakers. 53 out of 119 descriptors (45%) relate to the flat speech speaker, 80 out of 119 (67%) relate to the challenge speech speaker, and 14 out of 119 (12%) relate to both speakers.

Table 1: Descriptors used by respondents who had rated the 'speaker' as 'strong' or 'very strong'

flat / both / challenge (labels with arrows at left)

professor	educated	example	change	enlightened	guide
compassionate	positivity	talkative	socially acceptable	helpful	perceptive
involved	confident	proud	moral	good person	sociologist
psychologist	researcher	kindness	help	happiness	good in people
technology	positive thinker	Officer of technology	speech writer	pep talker	soft-hearted
Officer of relations	scientist	democratic	a fair person	non-racist	good-hearted
wants equality	diplomat	manager			
politician	President	preacher	optimist	inspiring	passionate
intelligent	thoughtful	philosopher	educator	humanitarian	idealistic
political activist	a caring individual				
progressive	liberal	powerful	hopeful	public service announcer	international motivational speaker
motivator	Luddite	free thinker	unified dreamer	peacemaker	empowering
strong	important	pastor	Buddhist monk	protestor	rebel
passionate liberator	game changer	activist	Democrat	empowered	vigilant
teacher	empathetic	writer	orator	libertarian	honorable
carefree	anti-Trump	influencer	role model	loving	trailblazer
religious	freedom fighter	not a follower	teaches some false doctrine	student	advocate
opinionated	pacifist	benevolent	dedicated to a great cause	devoted to great change	amazing
freedoms	fighter	uplifting	ranting	convicted	charismatic
someone who wants best for the world	peaceful	citizen of the world	an open minded person	a person who is angry with current state of the world	envisioned
war general	thinker	observer	persuasive	determined	revolutionary

4.3.3 Procedure

We conducted a survey to determine which of these 119 words/phrases would indeed be perceived as similar to leader ('semantic distance'), as assessed by randomly selected groups of different respondents. The list of 119 descriptors was first randomized with respect to order. A test group of 30 respondents, 16 women, 14 men, was then asked to assess the first set of 20 descriptors, on a 5-point Likert scale ranging from 'not at all similar meaning to leader' to 'same essential meaning as leader'. The questionnaire regarding the initial 20 descriptors and associated measurement scale are shown in Appendix 2. Respondents were able to distinguish similarities to the word 'leader' using the scale, so the other 99 descriptors were then broken into 3 sets of 33 and each set given to another group of randomly selected, different respondents, to assess (2 groups of 30 respondents – 15 men/15 women in both groups, and 1 group of 32 – 14 men/16 women/2 undeclared, as selected by MTurk).

4.3.4 Results

The results from the 4 group assessments were aggregated into one overall list and those words/phrases that had been assessed to be 3 or higher on the 5-point scale (similar meaning, very similar meaning, or same essential meaning as leader) were identified. These 30 words/phrases are shown in Table 2. The word/phrases in blue are the subset that remains of the flat speaker descriptors, those in red are the subset of the challenge speaker descriptors, and those in green are the subset describing both speakers. 8 out of 30 (27%) derive from the flat speaker descriptors; 25 out of 30 (83%) derive from challenge speaker descriptors. 3 out of 30 (10%) derive from descriptors common to both speakers.

Table 2: Descriptors deemed similar to/very similar to/same as 'leader'

guide	involved	confident	manager	diplomat
educator	President	inspiring		
international motivational speaker	persuasive	important	motivator	teacher
devoted to great change	revolutionary	influencer	envisioned	strong
not a follower	trailblazer	peacemaker	empowered	advocate
passionate liberator	empowering	role model	determined	powerful
dedicated to a great cause	war general			

We reviewed the data from all respondents to both speeches to determine usage of the descriptors in Table 2. 12 respondents (out of 55 total – just over 1/5) to the 'flat' speech used these descriptors; in contrast, they were invoked by 34 respondents (out of 67 total – about 1/2) to the 'challenge' speech. These preliminary ratios again pointed to a difference between the group assessments. A chi-square analysis confirmed a statistically significantly difference in use of words similar to leader between the two groups of respondents (greater use by the 'challenge' respondents): $\chi^2 = 10.7$, $df=1$, $N=122$, $p < .01$

4.3.5 Discussion

These results provided further evidence that the challenge speech speaker was perceived to be a stronger leader than the flat speech speaker. Results from Study 1 showed that participants used

the word 'leader' statistically more frequently to describe the former than the latter; results from Study 2 showed that they also used words 'similar' to leader more frequently to describe the challenge speaker. Thus direct perception of leadership, based on the descriptors participants used without prompting after reading the speech, was more strongly evident for the challenge speaker than for the flat.

4.4 Study 3: Analysis of the speeches

4.4.1 Purpose

The purpose of Study 3 was to determine the precise difference between the two speeches that caused the difference in perception of leadership strength.

4.4.2 Stimulus Selection

The stimulus was the act of reading all speech passages comprising the 'flat' and 'challenge' speeches from Study 1. The intent was to determine the type of feeling (and associated force) induced in the reader by each passage – i.e., positive (attractive), negative (repulsive), or neutral – and thereby to assign a corresponding valence to each of the passages in the two speeches.

4.4.3 Procedure

Two random, independent groups of readers were chosen to participate. Individuals in one group (67 respondents, 38 men, 28 women, 1 undeclared) were assigned to read the flat speech and individuals in the second group (54 respondents, 28 men, 24 women, 2 undeclared) the challenge speech. All respondents were then asked to assign valences to the speech passages, shown in pairs (i.e., indicate how strong a feeling each passage in the pair triggered for them).

Each speech was divided into 27 passages, and similar/corresponding passages from each speech were paired. Respondents assessed all 27 pairs of passages. For each group, the passage pairs were ordered so that the first passage in the pair corresponded to the speech that the respondent had read and the second passage corresponded to the similar passage from the second speech (that they had not read). For example, in assessing the first passage pair, those who read the flat speech were shown:

i)   People want to help one another. People are like that. They want themselves and others to be happy – not unhappy.

ii)   We all want to help one another. People are like that. We want to live by each other's happiness – not by each other's misery.

Those who read the challenge speech were shown:

i)   We all want to help one another. People are like that. We want to live by each other's happiness – not by each other's misery.

ii)   People want to help one another. People are like that. They want themselves and others to be happy – not unhappy.

The study questionnaire is shown in Appendix 3.[8]

4.4.4 Results

The respondents' data are shown in a table in Appendix 3. A valence for each speech passage was assigned by calculating the mean of all respondent assessments of that passage. One set of calculations was done for those who read the flat speech and one set for those who read the challenge speech. Thus, for each speech, we have two sets of valences assigned to all the passages.

For each set of respondents (i.e., those who read the flat speech and those who read the challenge speech) the mean speech passage values were categorized into two groups: passages with negative valences and passages with positive valences (there were no zero valence passages). A cursory review of the results revealed some pattern of differences between the negative valence passages in the two speeches – a number of passages in the challenge speech had a larger negative value than the corresponding passages in the flat speech. No such pattern was evident for the positive valence passages. For this reason we focused our preliminary analysis on the negative valence passage results.

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[8] In a preliminary study to assign valences to the speech passages, two groups of randomly selected, different respondents were asked to read either Speech 1 or Speech 2 and to assess only the passages from that speech, not from the other speech as well. We subsequently decided that we could collect a larger aggregate data set as well as glean more comparative information by having two independent, random groups assess pairs of passages; a pre-test confirmed that we could use this approach without placing undue burden on the participants in doing so – they were able to assess all 27 pairs without problem.

Respondents who read the flat speech assigned 10 passages in that speech a mean negative valence score ("passage" in the tables below refers to the passage # in the speech, ranging from 1 to 27; some of these passages were further sub-divided to provide more granularity in determining valences, e.g., 4ia, 4ib, 4ic):

Table 3: Negative valence passages in the flat speech as assessed by 'flat' respondents

passage	4 i a	4 i b	4 i c	5 i	6 i	11 i	14 i	17 i	23 i	24 i	Σ	mean
valence	-1.34	-1.49	-1.91	-0.52	-1.1	-1.4	-0.34	-0.6	-0.94	-1.31	-10.95	-1.09

Those same respondents assigned 12 passages in the challenge speech a mean negative valence score:

Table 4: Negative valence passages in the challenge speech as assessed by 'flat' respondents

passage	3 ii b	4 ii a	4 ii b	4 ii c	5 ii	6 ii	8 ii	11 ii	13 ii	17 ii	23 ii	24 ii	Σ	mean
valence	-1.46	-2.25	-2.24	-2.34	-1.01	-1.33	-1.64	-2.28	-1.19	-0.43	-0.03	-1.99	-18.19	-1.51

Respondents who read the challenge speech assigned 9 passages in the flat speech a mean negative valence score:

Table 5: Negative valence passages in the flat speech as assessed by 'challenge' respondents

passage	4 i a	4 i b	4 i c	5 i	6 i	11 i	17 i	23 i	24 i	Σ	mean
valence	-1.31	-1.54	-1.76	-0.76	-1.19	-1.47	-0.75	-0.81	-1.62	-11.21	-1.24

Those same respondents assigned 11 passages in the challenge speech a mean negative valence score:

Table 6: Negative valence passages in the challenge speech as assessed by 'challenge' respondents

passage	3 ii b	4 ii a	4 ii b	4 ii c	5 ii	6 ii	8 ii	11 ii	13 ii	17 ii	24 ii	Σ	mean
valence	-1.33	-2.17	-2.37	-2.35	-1.24	-1.59	-1.43	-2.19	-0.75	-0.36	-2.0	-17.78	-1.61

Note that the two independent groups who assessed the two speeches converged in their assessments – each tended to assign negative valences to essentially the same passages in each speech. A closer examination of the raw data showed that these negative values are largely

unambiguous – the vast majority of individual respondents chose a negative value for those passages (similarly, those passages with a mean positive valence were assessed by a large majority of individual respondents to be positive). The only differences in the negative valence passages were these:

- On balance, those who read the flat speech assigned a negative valence to passage 14 i (-0.34) while those who read the challenge speech did not (0.19).
- On balance, those who read the flat speech assigned a negative valence to passage 23 ii (-0.03) while those who read the challenge speech did not (0.42).
- All of these mean values are relatively close to 0. A closer examination of the individual respondent values assigned to these passages showed a fairly even split of positive, negative, and/or neutral responses. One might infer that these passages contain both positive and negative themes, thereby inducing both positive and negative feelings in the reader, which manifests in uneven responses and a variety of valences, depending on how a given individual reconciles these dissonant feelings.

In addition to the mean valence scores calculated for the negative valence passages in each speech as assessed by the two independent groups of respondents (and summarized in the tables above), the mean valence scores across all passages in each speech were calculated (i.e., means for all the passages in the flat speech as assessed by each of the two groups, and similarly means for all the passages in the challenge speech), as well as mean valence scores for all the positive valence passages in each speech. We then performed t-tests comparing the mean values and associated distributions between the flat and challenge speeches, as follows:

- For those who assessed the flat speech, compare:
    - ✓ mean of all passages, flat vs. challenge
    - ✓ mean of negative passages, flat vs. challenge
    - ✓ mean of positive passages, flat vs. challenge

The same comparisons of means were made for those who assessed the challenge speech. None of these results were statistically significant.

The data from the two respondent groups were aggregated and a t-test performed to see if the larger data set would reveal any statistically significant differences between the means of the

various passages in the flat and challenge speeches (i.e., all passages, negative valence passages, and positive valence passages). To facilitate this aggregation, the various corresponding means of the 'flat' and 'challenge' groups of respondents, respectively, were first compared to ensure that there was no statistically significant difference between the two group distributions (i.e., the means of the flat passages were compared between the groups (all, -ve, and +ve), and similarly the means of the challenge passages as well – any difference would indicate an order effect, since each group assessed the speech passages in a different sequence, i.e., 'flat' respondents assessed the flat passages first, 'challenge' respondents the challenge passages first). The analysis showed no significant difference between the distributions.

Thus the data for the two groups could be aggregated to form a larger data set of 121 respondents. The results of the analysis (Table 7) showed a statistically significant difference between the means of the negative valence passages in the flat vs. challenge speeches (flat values first in each pair, challenge values second – the challenge passages were significantly stronger), but no difference between the means of the positive valence passages or means of all the passages.

Table 7: Comparisons of aggregate means of flat and challenge speech passages

Aggregate means

	Mean	t	P value (1-tailed)
Raw	.646 .313	.855	.198
Positive	1.56 1.442	.776	.22
Negative	-1.099 -1.637	2.106	.02

A comparison of the negative valence passages between the two speeches showed that 7 passages in the challenge speech were stronger than their counterparts in the flat speech as assessed by both groups of respondents. In addition, all these challenge speech passages were at least 20% stronger, and 4 were 50% stronger as assessed by both groups. As well, the cumulative value of the valences for these passages was stronger for both groups – 66% stronger for the 'flat' group respondents and 59% for the 'challenge' group. Below are comparison tables, showing the corresponding passages as assessed by the two respondent groups.

Table 8: Comparison of negative valence passages between the two speeches as assessed by 'flat' respondents

flat passage	---	4 i a	4 i b	4 i c	5 i	6 i	---	11 i	---	14 i	17 i	23 i	24 i
valence	---	-1.34	-1.49	-1.91	-0.52	-1.1	---	-1.4	---	-0.34	-0.6	-0.94	-1.31

challenge passage	3 ii b	4 ii a	4 ii b	4 ii c	5 ii	6 ii	8 ii	11 ii	13 ii	---	17 ii	23 ii	24 ii
valence	-1.46	-2.25	-2.24	-2.34	-1.01	-1.33	-1.64	-2.28	-1.19	---	-0.43	-0.03	-1.99

Table 9: Comparison of negative valence passages between the two speeches as assessed by 'challenge' respondents

flat passage	---	4 i a	4 i b	4 i c	5 i	6 i	---	11 i	---	17 i	23 i	24 i
valence	---	-1.31	-1.54	-1.76	-0.76	-1.19	---	-1.47	---	-0.75	-0.81	-1.62

challenge passage	3 ii b	4 ii a	4 ii b	4 ii c	5 ii	6 ii	8 ii	11 ii	13 ii	17 ii	---	24 ii
valence	-1.33	-2.17	-2.37	-2.35	-1.24	-1.59	-1.43	-2.19	-0.75	-0.36	---	-2.0

Green arrows indicate passage pairs where respondents assessed the challenge passage to be stronger than its corresponding flat passage; black indicates passage pairs where the flat passage was stronger than its challenge counterpart. Note that some passages have no negative valence counterpart (indicated by blue arrows – 3 ii b, 8 ii, and 13 ii in both tables, 14 i in Table 8, 23i in Table 9).

A similar analysis on the positive valence passages revealed no significant differences between the speeches with respect to relative strengths of these passages.

Below are graphical analyses and comparisons of the relative strengths of the negative valence passages between the flat (blue graph) and challenge (red graph) speeches, as assessed by the

two independent groups of respondents. Note that the negative valence passages were clearly stronger overall in the challenge speech than in the flat speech in the perception of both groups.


flat and challenge passages comparison

	B	C	D	E	F	G	H	I	J	K	L	M	N
Series1		-1.34	-1.49	-1.91	-0.52	-1.1		-1.4		-0.34	-0.6	-0.94	-1.31
Series2	-1.46	-2.25	-2.24	-2.34	-1.01	-1.33	-1.64	-2.28	-1.19		-0.43	-0.03	-1.99
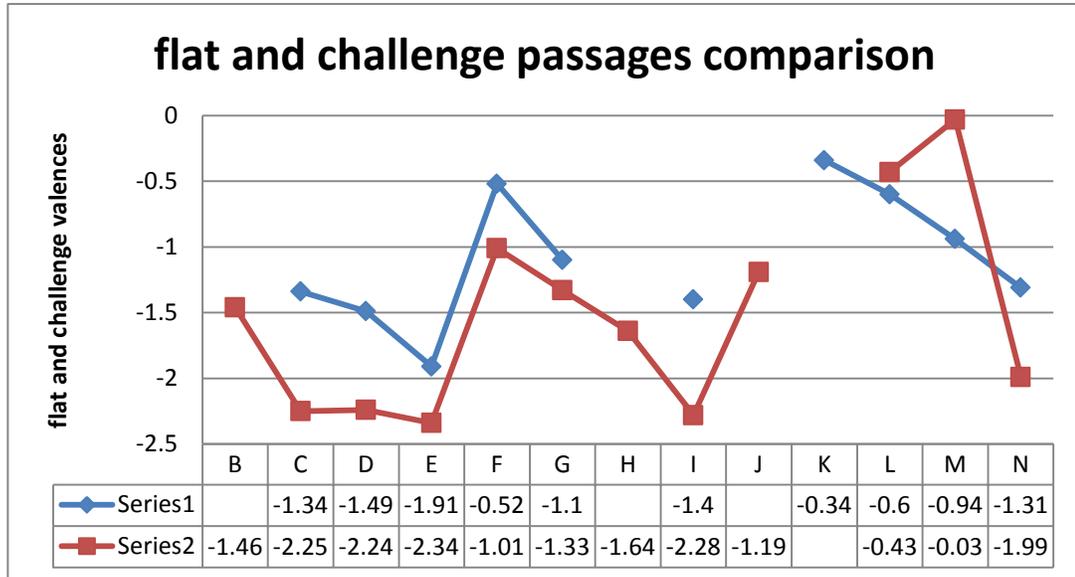
Figure 4: Negative valence comparisons – data for 'flat' respondents

flat and challenge passages comparison

|	B	C	D	E	F	G	H	I	J	K	L	M
Series1		-1.31	-1.54	-1.76	-0.76	-1.19		-1.47		-0.75	-0.81	-1.62
Series2	-1.33	-2.17	-2.37	-2.35	-1.24	-1.59	-1.43	-2.19	-0.75	-0.36		-2
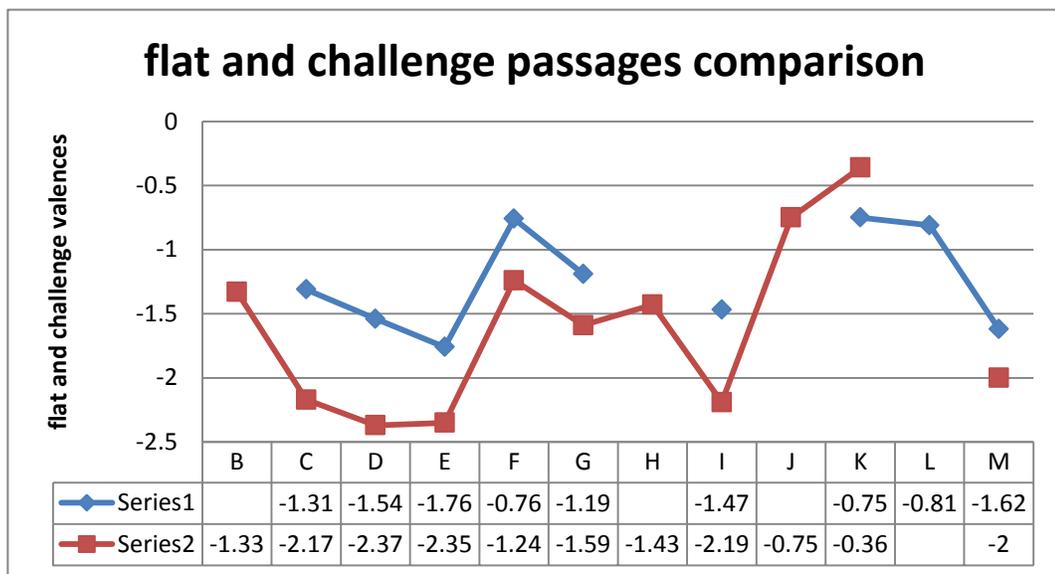
Figure 5: Negative valence comparisons – data for 'challenge' respondents

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4.4.5 Discussion

The variety of analyses presented above indicated that a difference between the flat and challenge speeches was the relatively larger strength of the negative valence passages in the challenge speech as compared to the flat speech, as perceived by the 121 study participants; moreover, this was the only discernible statistically significant difference between the two speeches that was revealed in detailed analysis.

Significance of the negative valence passages

Passages with a negative mean valence score indicate that reading the passage generally induced a negative feeling in the reader, from which we would infer that they would either want to avoid the associated perceived situation/region of activity or they would want it changed (i.e., challenged) if need be. Such feelings in the individual would tend not to align with the prevailing situational forces as perceived by that individual. For example, Speech 1, passage 6 i (valence -1.1/-1.19 from the respective flat/challenge groups), states: "More knowledge sometimes seems to result in cynicism. More cleverness sometimes seems to result in more hardness and unkindness." The negative feeling induced in the reader is likely because that individual would prefer knowledge not to result in cynicism, and cleverness not to result in hardness and unkindness – the individual would likely want those prevailing situational forces challenged, to turn knowledge and cleverness to more benevolent use. The person giving the speech is declaring that knowledge sometimes results in cynicism and cleverness sometimes results in hardness and unkindness, with the associated implication that this is not a desirable state and that he does not like it – thus he is meaningfully challenging the perceived prevailing situational forces, as desired by the reader. Through his statement he is bringing the reader's attention to a region of activity that the reader perceives has a negative valence, thereby inducing or amplifying a negative feeling in the reader with regard to that region so that he is moved to align with the speaker's challenge to the existing equilibrium state.

Similarly, passage 24 i (valence -1.31/-1.62) states: "Non-democratic governments tend to help themselves, but they tend not to help their citizens." Again, the reader experiences a negative feeling likely because she would prefer that governments serve their citizens, not themselves, and would likely prefer that any prevailing non-democratic situational forces that might be seen

to be precipitating self-serving interests on the part of governments be changed. And again, the person giving the speech is making a declaration with implications that he does not seem to desire, and is thus again challenging the perceived prevailing forces, as desired by the reader.

In Speech 2, passage 3 ii (valence -1.46/-1.33) states: "… but we have lost the way." This induces a negative feeling in the reader, who likely wants to return to the presumed better way that has been lost. The person giving the speech also seems not to be happy that the way has been lost, and by extension is challenging the prevailing situational forces that have resulted in 'that way' being lost. Passages 4 ii a, 4 ii b, and 4 ii c (valences -2.25/-2.17, -2.24/-2.37, -2.34/-2.35) state: "Greed has poisoned people's souls…; (greed) has barricaded the world with hate…; (greed) has goose-stepped us into misery and bloodshed." These three passages in rapid succession induce significant negative feelings in the reader regarding greed. The reader would likely not want people's souls to be poisoned, the world to be barricaded with hate, or anyone to have to experience misery and bloodshed. His negative feelings would be out of alignment with the perceived prevailing situational forces of greed declared by the person giving the speech, who again seems to be challenging those prevailing forces.

We can also examine the cumulative value of the negative valence passages in each speech. Tables 3 – 6 show that the cumulative value for the negative passages in the flat speech as assessed by the two groups of respondents is -10.95/-11.21 and for the challenge speech -18.19/-17.78. In developing the theory we argued that leadership emerges as a result of the accumulation of a number of perceived challenges that successively induce forces and sway an individual over time. The cumulative value of challenges invoked by reading the negative valence passages is significantly larger in the challenge speech as compared to the flat speech (66% and 59% for the respective respondents). We would therefore predict again that leadership would emerge more strongly reading the challenge speech than the flat.

Note that the passages that have no negative valence counterpart in Tables 8 and 9 (indicated by blue arrows) have been included in the cumulative value. We would argue that these passages contributed to the overall perceived strength of the negative valence passages, since they induced a negative feeling in participants reading the associated speech where no corresponding negative feeling was induced in reading the other speech. Thus they would be expected to increase the cumulative effect on the reader where no similar increase accrues in the other speech.

Observations on the positive valence passages

Closer examination of the positive valence passages revealed another contrast between the speeches. All the passages with mean negative valence (as assessed by the readers) invoke a challenge on the part of the person giving the speech, and these passages were stronger in the challenge speech. In contrast, the positive valence passages in the flat speech tend to be either benign generalities or somewhat in line with implied prevailing situational forces that are seemingly desired (i.e., no meaningful challenges in either case), e.g.:

   i)   People want to help one another. People are like that. They want themselves and others to be happy - not unhappy.

   ii)   The airplane and the internet have brought people closer together.

   iii)   The world has room for everyone. The earth is good and rich and can provide for everyone. People can be free and life can be beautiful.

   iv)   Men and women are generally good, creative, and want to be free, have good work and have great adventures.

The corresponding positive valence passages in the challenge speech are similarly benign, e.g.,:

   i)   We all want to help one another. People are like that. We want to live by each other's happiness - not by each other's misery.

   ii)   The airplane and the internet have brought us closer together.

   iii)   The world has room for everyone. And the good earth is rich and can provide for everyone. Life can be free and beautiful …

   iv)   You, the people, have the power to make this life free and beautiful, to make this life a wonderful adventure.

However, some of the positive valence passages in the challenge speech tend to *challenge* the implied prevailing situational forces that are *not* desired. The corresponding positive valence passages in the flat speech tend not to do this.

For example, passages 18 ii (valence 1.66/1.79), 22 ii (valence 1.66/2.19), and 26 ii (valence 1.67/1.92) all implore the reader to fight, presumably against undesired prevailing forces:

Passage 18 ii: "You are people! You have the love of humanity in your hearts! You don't hate! People! Don't fight for slavery! Fight for liberty!" (implied prevailing forces of hate and slavery are not desired – the speaker is challenging them in favour of humanity and liberty)

Passage 22 ii: "Let us fight for and create a new world – a decent world that will give all men and women a chance to work, to be free, to be happy – that will give youth a future and old age a security." (implied prevailing 'old world' forces are not creating a 'decent world' – the speaker is challenging them)

Passage 26 ii: "Let us fight for a world of reason, a world where science and progress will lead to happiness for all." (implied prevailing forces do not support reason, science and progress – the speaker is challenging them).

If we add the values of these passages to the cumulative total (in absolute value terms) of the negative valence passages, then the total of the meaningful challenge passages becomes even larger in the challenge speech.

So the converging empirical results seem to confirm that respondents perceived stronger leadership emerging in the challenge speech than the flat, and the various valence arguments seem to explain the difference between the speeches – passages that consistently invoke stronger meaningful challenges - that resulted in the difference in perception.

4.5 Verification of Hypothesis 1

1. Hypothesis: An individual who meaningfully challenges the status quo more strongly than another over time will be perceived to be a stronger leader.

2. Respondents perceived someone who delivers the 'challenge' speech to be a stronger leader than someone who delivers the 'flat' speech. (dependent variable)

3. Respondents perceived the negative valence passages in the 'challenge' speech to be stronger than the negative valence passages in the 'flat' speech. (independent variable)

4. The only statistically significant difference between the two speeches was the perceived strength of the negative valence passages.

5. Therefore, the difference in perception of leadership strength between the two speeches can reasonably be attributed to the difference in strength between the negative valence passages in the two speeches.

6. Explanation: negative valence passages induce a negative feeling in the reader. Reader wants to avoid or change the situation. Reader also perceives the speaker to dislike the situation, and therefore challenging (e.g., asks reader to 'fight') the prevailing forces. Reader aligns with speaker challenging. These attractive and repulsive induced forces and associated movement are all explained by Lewin's field theory.
   a. Speaker giving 'challenge' speech was perceived challenging more strongly than speaker giving 'flat' speech. (conclusion derived from valence study)
   b. Speaker giving 'challenge' speech was perceived as stronger leader. (conclusion derived from speeches study)
   c. There would appear to be evidence for a strong relationship between a and b.

4.6 Study 4 – Investigations into Perceived Acts of Leadership: Compilation and Rating of Examples

4.6.1 Purpose

This study was conducted to gather examples of perceived acts of leadership that could subsequently be analyzed to test Hypothesis 2. The study was done in two parts.

The purpose of Part 1 was to compile a list of varied and specific examples of perceived acts of leadership.

The purpose of Part 2 was to distinguish perceptions of the strongest and weakest examples of acts of leadership in the compiled list, with the intent of further assessing these in a subsequent study to reveal evidence or absence of meaningful challenge/resistance to challenge as a unique common element.

4.6.2 Procedure – Part 1

A survey was designed to elicit responses from participants regarding examples of acts of leadership in any of a variety of domains of their choice, encountered either through direct personal experience (for example, a situation at work or in their personal life), or through indirect experience (for example, a situation that they had read about or seen in a movie). The participants were asked to describe specifics regarding these perceived acts: a brief description of the situation and what happened, specific examples of things that the leader (or leaders) did in this situation that the respondent considered to be acts of leadership, and a description of how others responded to these acts (what they specifically said or did). The survey questionnaire is shown in Appendix 4.

A test run of the survey was administered to a randomly selected group of 20 respondents, 10 men, 10 women, who had not participated in any of the previous surveys. The results of the test were deemed satisfactory – respondents provided a range of examples of acts of leadership in their experience, brief accounts of why they saw these as leadership, and brief responses regarding how others responded to these acts. A second larger survey was then conducted, replicating the test procedure, comprising 31 respondents (16 men, 15 women) and these results were aggregated with the test results – 51 respondents in total, 26 men, 25 women.

4.6.3 Results – Part 1

A list was compiled detailing the 51 examples of perceived acts of leadership and associated accounts describing why leadership was perceived and how others responded in each case (see Appendix 4). Below are some sample responses:

1. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.
2. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

3. This would be considered an indirect experience as the story was told to me – an experience my daughter had for a class at school. In this class the instructor assigned a group project and randomly picked the teams. Initially, everyone that ended up in her team sounded enthusiastic about the project and seemed willing to contribute. As time went on however, the majority of the group was not contributing their fair share and it seemed as if those members were sort-of blowing off this project to some degree. However, there was one male student who kept trying to keep it all together by putting forward great work and trying to get everyone in the group to do their fair share. No group leader was assigned initially, but as time went on this male member of the group took the lead and everyone else in the group seemed to follow. My daughter didn't want to be the group lead really so he said she was glad when someone stood up to take the mantle. In the end, even with a few sub-par group members, the project was a success largely due to the efforts of this guy who took charge.

4. Manager Joe Maddon leads the Chicago Cubs to their first world series championship in 108 years.

5. Years ago I worked in school foodservice. It was a Saturday and I was there doing a Saturday detention program with approx. 40 high school kids. The plant manager was also there on the grounds on a separate job. At approximately 11am the power went out in the entire school and the generators did not come on. All I could think of was the $10,000 worth of food that was in the kitchen refrigerators and freezers. I messaged the plant manager and asked him what to do. He immediately took over the situation and made the decision to send everyone home early and he and I loaded up his truck with all of the food from the freezers and refrigerators and drove it down to the closest school in the district that had power that was ten miles away. We unloaded the food into their freezers. He had keys to all the buildings so it was no trouble entering the buildings on a weekend. I was grateful for him to take over and show such leadership as $10,000 worth of food would have been lost if he was not there to take over as the power was out at the school for one week.

6. We had a new supervisor come in and she was able to organize and streamline a number of different departments that originally were working at odds with each other and not getting along at all.

7. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

8. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

4.6.4 Discussion – Part 1

The detailed descriptions of the 51 acts of leadership provided wide-ranging and varying examples. Given that each of these examples was based on one individual's perception, it was necessary to do further analysis to achieve a more broadly agreed assessment of each example as an act of leadership. This was accomplished by conducting a second part to the study, soliciting input from another group of respondents who rated each of the acts as to perceived strength of leadership.

Part 2 – Rating the Compiled Acts of Leadership

4.6.5 Procedure – Part 2

The compiled list of 51 perceived acts was broken into 3 sets of 17 acts each, and each of these sets was assessed by a second group of randomly selected respondents (3 groups of different respondents, each comprised of 30 individuals, 15 men, 15 women).

Respondents in these groups were asked to rate each of the 17 acts on a 5-point leadership scale (ranging from very weak to very strong)**,** one at a time, to determine their perception of the leadership strength of each act, i.e., how strongly they felt it describes leadership. Three 'sample' acts are listed at the beginning of the questionnaire, as examples to facilitate the instructions. These samples were different for each group – they were taken from one of the other two sets of acts, to avoid any bias effect. The questionnaire is in Appendix 4.

4.6.6 Results – Part 2

The data from the 3 sets of 17 acts were compiled into one ranked list, and this list was reduced to the subset of acts whose mean values as rated on the leadership scale were either greater than or equal to 3.5 or less than or equal to 2.5 (this was intended to determine the strongest and weakest examples of acts of leadership to further assess). The reduced list with ratings is shown in Appendix 4.

4.6.7 Discussion – Part 2

8 acts were rated less than or equal to 2.5 on the scale (weak leadership); 8 were rated 3.5 to 3.9 (moderate-to-strong); and 6 were rated greater than or equal to 4 (strong to very strong). The other 29 were rated 2.5 to 3.5 (weak to moderate). Thus it was possible to clearly distinguish perceptions of strongest and weakest examples of acts of leadership in the compiled list of 51 acts to assess further.

4.7 Study 5 – Identifying Similarities and Differences Between Strong and Weak Acts of Leadership

4.7.1 Purpose

The purpose of this study was to determine if there were evident commonalities and differences between those perceived acts of leadership rated strongest and weakest in Study 4.

4.7.2 Procedure

One procedural option was for the experimenter to look for patterns in the strongest and weakest acts of leadership and subjectively code these to identify similarities and discern differences. Instead, we chose to make these distinctions by soliciting additional objective empirical data in the form of another set of assessments by a random group of independent individuals.

The 4 acts perceived strongest and the 4 acts perceived weakest were each assessed by a group of 32 randomly selected, different respondents who were asked to describe perceived similarities between the strongest acts, similarities between the weakest acts, and differences between the strongest and weakest acts. To avoid order effects in the assessments, some respondents (12 total, 4 men, 7 women, 1 undeclared) assessed the strong acts first and then the weak acts, while

others (20 total, 11 men, 8 women, 1 undeclared) assessed the weak acts first, then the strong – the order was randomly assigned. The 4 acts perceived strongest (highest-rated) had values of 4.1, 4.2, 4.3, and 4.5. The 4 acts perceived weakest (lowest-rated) had values of 2.1, 2.2, 2.3, and 2.4. These 8 acts are shown below. The 'strong/weak' version of the questionnaire is shown in Appendix 4.

"Strong" descriptions of leadership

1. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

2. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

3. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

4. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.

"Weak" descriptions of leadership

1. Taking family pictures I had the list of needed poses and such. I was in charge.

2. I am the leader of a department, I show leadership every day.

3. I had to lead my team of 4 other people in a competitive video game.

4. An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work.

4.7.3 Results

A summary of the respondents' descriptions of perceived similarities and differences was compiled, and the responses tabulated (commonalities between strong acts, commonalities between weak acts, and differences between strong and weak acts – see Appendix 4).

A summary of the analysis (Tables 10, 11 and 12) showed that the words and phrases used by respondents to describe the strong vs. weak leadership scenarios were dominated by a significant number of references to 'meaningful', 'extraordinary', and 'challenging' situations in the strong examples (13 of 32 respondents) as compared to a large number of references to 'everyday', 'unextraordinary', and generally not very challenging situations in the weak examples (13 of 32). As well, acquisition of power in an implicitly agreeable way was a dominant theme in the strong scenarios ('taking charge' or 'taking control', in a non-coercive manner – 9 of 32) vs. appointment/assignment of power, imposed on others rather than conferred or agreed by them, dominating in the weak scenarios ('being' in charge, 'assigned' to the 'position' – 9 of 32). In addition, many descriptions of the strong scenarios referred to a detailed narrative that provided needed context and engaged/moved the reader (18 of 32) vs. a large number of vague, unimportant narratives that did not engage or move the respondents in the weak examples (16 of 32).

We noted also that two of the four strong scenarios were about resisting challenges and disruption to the status quo and re-establishing quasi-stationary equilibrium that would otherwise be lost (one about a CPR/seizure situation; a second about mounting and managing a funeral) while one was about meaningfully challenging the status quo (a peace march), and one was about both meaningful challenge and meaningful resistance to challenge (referring to U.S. President Lincoln: challenging slavery while resisting challenge to the break-up of the Union).

Table 10: Common themes in strong leadership scenarios - # out of 32 respondents

Meaningful (or similar to meaningful)/challenging (or similar to challenging) - 13 respondents	Taking charge (or similar to taking charge) – 9 respondents	Detailed, specific (or similar) – 18 respondents	Doing good for others (or similar) – 5 respondents
'extraordinary'	('taking charge during very stressful situations/able to rise up and lead others when no one else can'	'specific'	'doing good for others'
'determine what is important'	'going out of your way'	'specific details'	'selfless and doing things for others'
'in charge of a specific/significant (possibly life changing) event'	'above and beyond'	'very descriptive, actually go into detail'	'actions were to the benefit of other people'
'meaningful ways'	'taking responsibility'	'very detailed' (2)	'working toward the greater good'
'doing important things'	'strong and decisive actions'	'how they led'	'all about the greater good'
'higher stakes and calls to action'	'taking control'	'steps or details'	
'meaningful/exemplary'	'responsibility'	'specific hows'	
'more meaning'	'large responsibilities'	'what was done and why'	
'made a difference'	'no indecisiveness and the overall character in each scenario appears to be that of "take charge"'	'strong evidence'	
'number of people affected, how lasting the impact is'		'gave examples of why'	
'very challenging situations'		'detailed'	
'some challenge that was not part of everyday life for most people'		'great detail'	
'being tested in a life altering moment'		'very descriptive'	
		'more detail and	

		explain why'	
		'a lot of descriptive details'	
		'very descriptive situations'	
		'considerable detail that allows for a better picture of the scenarios'	

Table 11: Common themes in weak leadership scenarios - # out of 32 respondents

Everyday, unextraordinary (or similar) – 13 respondents	Assigned to be in charge or assumed without evidence (or similar) – 9 respondents	Non-detailed, non-specific (or similar) – 16 respondents
'everyday situations'	'being in charge'	'vague'
'nothing extraordinary'	'being in charge than being a true leader'	'event is vague'
'not that significant/everyday occurrences'	'state that a certain person is in charge, but nothing else/no description or explanation to why they earned that position'	'no real details'
'insignificant'	'assigned to be person in charge'	'don't go into detail'
'nonrelevance'	'appeal purely to the position'	'not enough information'
'nothing particularly out of the ordinary'	'I was in charge'	'wasn't very specific'
'nor as important'	'they think they were in charge but have no evidence for it'	'not very specific'
'trivial, non-important things'	'thought they were in charge but didn't do anything'	'vague' (3)
'small scale issues and none have drastic life changes'	'there is no "I " in team and that is what each of these sentences have'	'not much detail'
'generic'		'lack details'
'seems very unimportant'		'very simple'
'generic descriptions'		'none are very descriptive of what they actually did'

'pretty common knowledge'			'don't list anything specific'	
			'no examples of why'	

Differences between strong and weak scenarios

Meaningful/extraordinary/challenging vs. everyday/unextraordinary/not very challenging

Taking charge/rising up vs. being in charge/assigned

Detailed, specific descriptions vs. non-detailed, non-specific

Table 12: Summary of commonalities and differences

Common themes in strong leadership scenarios	# out of 32 respondents	Common themes in weak leadership scenarios	# out of 32 respondents	Differences between strong and weak scenarios
Meaningful (or similar to meaningful)/challenging (or similar to challenging)	13	Everyday, unextraordinary (or similar)	13	Meaningful/extraordinary/challenging vs. everyday/unextraordinary/not very challenging
Taking charge (or similar to taking charge)	9	Assigned to be in charge or assumed without evidence (or similar)	9	Taking charge/rising up vs. being in charge/assigned
Detailed, specific (or similar)	18	Non-detailed, non-specific (or similar)	16	Detailed, specific descriptions vs. non-detailed, non-specific
Doing good for others (or similar)	5			

4.7.4 Discussion and Verification of Hypothesis 2

We would claim that these data provide support for Hypothesis 2 and are further empirical evidence for our field theory of leadership. The strong leadership scenarios were repeatedly described as situations where the prevailing situational forces were significantly disrupted, disturbing the existing equilibrium in an unusual, meaningful and challenging manner as perceived by the participants, with someone stepping in and taking charge to remedy an imposed disturbance and re-establish order or to initiate a disturbance and establish a new order. The

implication is that without this intervention the situation would not have regained or transitioned to a desired equilibrium. The scenarios are recounted in sufficient detail to provide a meaningful context to participants, providing compelling reasons others aligned and acted. As well, the scenarios were often described in terms of the perceived leader taking action towards the 'greater good', reinforcing the notion of an individual engaging a group in tackling a collective action problem in a meaningful and desired way. In contrast, the weak scenarios were generally described as routine situations with little meaningful context, and power dubiously assigned or assumed by questionable authority rather than conferred by the relevant collective.

5. General Discussion and Conclusions

The speech experiment participants in Study 1 were confined to the stimulus of reading the contents of the speech. They could not perceive specific traits or characteristics in the 'speaker' nor specific styles or behaviours, nor was there was any exchange mechanism (economic, social, or psychological) between the speaker and participants; therefore, their responses could not reflect any of these elements. Thus existing theories built on these elements do not provide a basis for explaining our experimental findings of stronger leadership emergence in the challenge speech than in the flat speech. In contrast, our field theory approach uncovers and explains a difference between the two speeches that would seem to result in a corresponding difference in perceived strength of leadership emergence. As further evidence supporting our construct in comparison to the dominant existing theory, participant answers to the questions regarding the four transformational leadership dimensions in Study 1 demonstrated that this construct failed to detect leadership emergence in either speech, and also failed to detect any perceived difference in leadership strength between the two speeches.

Some additional observations can be made to further support the valence/challenge argument.

In reading a particular passage, two things are perceived by the reader: he experiences a particular feeling (positive, negative, or neutral) as a consequence of assimilating what he has read, and he also likely formulates a perception of how the person giving the speech feels about the issue of concern in the passage. Consider this example from the challenge speech: "Greed has poisoned people's souls…; (greed) has barricaded the world with hate…; (greed) has goose-stepped us into misery and bloodshed." This passage induces significant negative feelings in the reader regarding greed, and the reader also likely infers that the individual giving the speech has negative feelings about greed as well. One can analyze this dynamic using Heider's balance theory as a framework (Cartwright and Harary, 1956).

According to Heider, if we have three interconnecting elements at play, represented by vertices of a triangle, with each link between two vertices represented as either a positive or negative (attractive or repulsive) relationship, then the situation is in balance if the product of the signs of the forces around the triangle is positive, and is out of balance if the product is negative. If the

system is not in balance, there will be a motivation to achieve balance by changing one of the signs. We can apply this framework to the three elements interacting in a speech passage situation: the person reading the passage, the person 'delivering' the passage, and the passage itself.
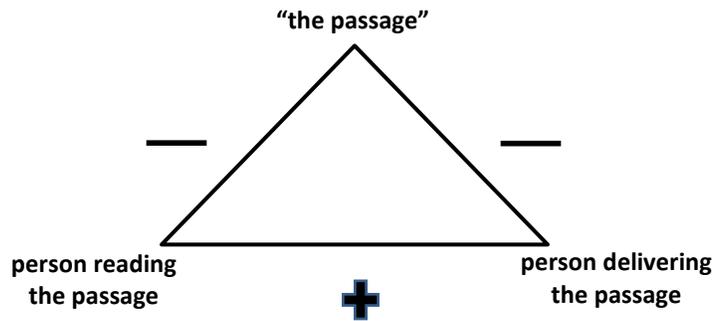

Figure 6: Heider's balance theory applied to negative valence passages

If the person reading the passage experiences a negative feeling as a consequence of reading it, and the reader also perceives that the person delivering the passage has a negative feeling towards the issue at hand and is challenging the prevailing situational forces as expressed in the passage, then for the triangle to be in balance the reader would be inclined to have a positive attitude towards the person delivering the passage and making the challenge.

Our conventional views of leadership often seem to invoke 'vision' and involve a need for change. It is interesting to note that a number of the descriptions of acts of leadership in Studies 4 and 5 referred to scenarios in which an individual was seen to restore equilibrium to a previously disturbed situation, i.e., the focus was to *reverse* or *prevent* change. Our everyday experience is governed by a plethora of behaviour settings and institutional rules, procedures and practices that help bring order to our lives and are generally meant (one would expect) to facilitate our interactions. The reported leadership acts provide evidence that when these interactions are disturbed beyond the capability of a system to respond leadership can emerge in the form of an individual bolstering the system by augmenting the existing stabilizers in reacting *against* change. It may be that in our daily lives we experience leadership as much (or perhaps more) in perceived meaningful resistance to challenges to behaviour settings and institutions than in challenges to them.

Also of interest is the observation that leadership in the speeches experiment emerged through language alone. This further highlights the distinction between emergence and effectiveness, and seems to indicate that emergence and effectiveness may be coupled or decoupled.

Where capability and effectiveness are demonstrated through physical action, emergence and effectiveness seem tightly coupled. For example, the actions of a great hunter or warrior, whose skill is on display and who consequently is able to mobilize and direct others (based on this skill) to achieve a goal, are visible – effectiveness would seem to precede and cause emergence.

In other situations, emergence may precede evidence of effectiveness. For example, a political candidate may convey leadership via speeches, oratory, debate, and conversation. Most politicians running for election, and even once elected, are known to most voters and citizens only through their speeches and other linguistic vehicles, not through observed actions and accomplishments; most voters likely cannot rigorously ground their judgment as to whether or not the politician can deliver on her promises. Leadership in this case emerges through language, as in the speeches experiment.[9]

It would seem that in contemporary society and organizations leadership emergence and leadership effectiveness (effectiveness from the perspective of getting a collective to accomplish desired collective outcomes) are often decoupled or very loosely coupled from the perspective of those who will be led. Political (and other) leaders create perceptions and meaning (largely through language), promising to deliver on desired outcomes and perceived (hopefully) to be able to deliver on these; demonstrated effectiveness happens only sometime after this emergence (if at all), rather than preceding it. There is inherent risk in decoupling emergence and effectiveness that would seem to be problematic.

A final observation: our field theory approach helps to explain why leadership is deemed so important even in domains where individuals have command authority to which others must

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[9] A column in *The Economist*, June 18, 2016, p.88, entitled 'Why Donald Trump's rhetoric – with apologies to Orwell – works so well' attempts to explain Trump's success in the Presidential primaries in 2016. The columnist writes: 'How did this man become the presidential nominee of the party of Abraham Lincoln? He must be doing something right: after all, language is virtually all a politician has to wield influence with (handshakes and hugs aside). Something about the way he talks and writes swept more experienced politicians aside.' The columnist goes on to argue that the reason for Trump's rhetorical success is threefold: simplicity, repetition, and being unscripted. While these tactics may have been useful, our field theory shows that there is a deeper reason for Trump's success with voters: these tactics have been used in service of meaningfully challenging the status quo/system as perceived by a particular collective.

adhere, e.g., military commanders and sports team captains. Given the positional authority inherent in these roles, one might reasonably ask why leadership matters. A military commander or a football quarterback can simply direct others to do what he wants them to do. We would argue that the need for leadership shows up in two ways. First, the command role demands that its occupant meaningfully resist challenges to the status quo and maintain system stability (e.g., maintain an intact and functioning military unit) in circumstances where the automatic stabilizers are constantly under siege and being challenged, e.g., a battlefield with emerging situations that cannot always be predicted or designed for – one cannot simply command adherence to the rules and practices of a stable behaviour setting. Second, the command role also demands that its occupant meaningfully challenge the status quo from the perspective of his team, in the form of attacking, destabilizing and overthrowing the opposition. Possession of coercive positional power in the role will likely not be sufficient for success. Team members will want to be confident that their commander has the capability to both meaningfully challenge and meaningfully resist challenge as unpredictable, non-routine situations arise, and the commander will need to have earned, and continue to earn, non-coercive personal power by demonstrating possession of this capability.

6. Contributions, Limitations, and Future Work

The theory and research findings presented in this thesis provide a new way to understand the leadership phenomenon and how leadership emerges in the perception of observers, neither of which are clearly explained or understood in the current literature. Our field theory approach departs from existing theories grounded in trait, situational/contingency, and exchange mechanism approaches. Our critique of existing literature also highlights some shortcomings in current research assumptions and approaches, particularly conflation of the leadership phenomenon with organizational roles and the fundamental attribution error conflating organizational outcomes with individual agency.

The phenomenological approach taken in this research also differs from many existing approaches. Rather than assuming that leadership already exists in a particular role and then examining traits, behaviours, exchange mechanisms and so on to determine correlations between these elements and various measures of effectiveness in the role, we explored experimentally how leadership seems to emerge in the first place to try to understand the phenomenon itself. We also compiled examples of acts of leadership as reported by a random group of respondents, to get a sense of how individuals perceive the phenomenon in various real situations in their experience, again rather than assuming we understood the phenomenon at the outset. This phenomenological/descriptive perspective (what *is* leadership?) differs from what often seems to be a moralistic/prescriptive approach in existing literature (what *ought* leadership to be?). For example, a number of meta-analyses in recent literature focus on leadership effectiveness and the validity of different leadership theories (e.g., Avolio et al, 2009; Burke et al, 2006; Judge and Piccolo, 2004). In these studies the researchers manipulated leadership as the independent variable in various organizational settings in an effort to discern the impact on staff/followers. In contrast, we chose to investigate leadership experimentally as a dependent variable, manipulating meaningful challenge as an independent variable to see whether leadership was perceived and, if so, how strongly.

Much existing literature sees leadership as intimately connected with change. While we would agree that this is sometimes the case – meaningful challenges to the status quo/system – we have

also argued that sometimes leadership is about meaningful resistance to challenges and thus resistance to change. This again is a departure from current thinking.

Use of multiple study designs (experiment and qualitative studies) was intended to test two different conditions, 'if meaningful challenge then leadership' and 'if leadership then meaningful challenge/resistance', as well as to counterbalance issues that might arise using a single approach. For example, in the case of the speeches experiment, while we were able to test the causal hypothesis in a specific setting, there are always limitations in representative design of the real world, i.e., ecological validity, with respect to the emergence of leadership, and associated limitations in the generalizability of results.

The qualitative survey provided the opportunity to probe more specifically with respondents about their perceptions of acts of leadership and associated emergence of the phenomenon in a directly questioning way not possible in the experiment. However, there are limitations in the survey approach related to self-reporting and associated response biases (e.g., accuracy of recall of specific events) and the inability to capture actually observed, rather than reported, behaviours. In contrast, the experiment facilitated more direct detection of specific perceptions. The experiment also allowed specific manipulation of an independent variable to see its effect on a dependent variable in testing the causal hypothesis, which was not the case in the qualitative surveys regarding acts of leadership.

Attempts were made where feasible to address limitations with respect to validity and reliability issues in the studies. For example, in Study 3, analysis of the speeches, two independent groups of readers were each assigned to read one version of the speech (flat or challenge), and then all respondents were asked to assign valences to individual speech passages, shown in pairs, one from each speech, with the order of the passages dependent on which speech they had read. The two groups of respondents converged in their assessments – each tended to assign negative and positive valences to the same passages. Thus we can reasonably conclude that we obtained a reliable assessment of the valences of the speech passages. In Study 1, the speeches experiment, respondents invoked the word 'leader' in describing the 'speaker' without prompting in their assessments of their respective speeches, and significantly more frequently with respect to the

'challenge' speech. We would thus reasonably claim validity in measuring perceptions of leadership strength in both speeches.

The focus of research in this thesis was on leadership emergence. The speeches experiment invoked different strengths of sustained meaningful challenges as a causal test for differences in perceptions of leadership strength emerging in a previously 'leaderless' situation, with positive results. Future work could look at sustained meaningful resistances to challenge (in appropriate circumstances) to see if similar results are obtained. Another question to investigate is the threshold of sustained challenges (or resistances to challenge) that must be reached before leadership is perceived to emerge, i.e., how many acts of challenge (or acts of resistance) are required? Does the strength of the challenges/resistance affect the minimum number needed, e.g., is one highly significant challenge sufficient in some cases for leadership to be perceived?

The statistically significant difference between the flat and challenge speeches was the strength of the negative valence passages, all of which inherently invoked meaningful challenge. We also observed that some of the positive valence passages in the challenge speech seemed to invoke meaningful challenge, but this is not characteristic of these passages. A research question to pursue would be whether a speech comprised of only positive valence passages could invoke meaningful challenges sufficiently strong for leadership to be perceived to emerge.

Another interesting line of research would be to further explore the manager/leader distinction. One might ask respondents to reflect on various roles they have held and identify which of their managers they considered to be leaders and what distinction, if any, they would make between the two designations.

Research into the elements of leadership effectiveness would also be appropriate – for example, is there a difference between leadership effectiveness and managerial effectiveness (or any other kind of effectiveness)? What constitutes leadership effectiveness? What is the transformational construct (and what are other constructs) measuring?

An early version of the experiment using computerized male and female voices to deliver the speeches showed that both male and female participants perceived a difference in the strength of

leadership between the flat and challenge speeches when the speaker's voice was male, but no such difference was detected when the speaker's voice was female (see Footnote 7 to the Overview of Studies, Section 4.1). This would seem to indicate that gender has some effect on the perception of leadership emergence, indicating another interesting and valuable opportunity for further research. Some immediate questions arise: when reading the speech, did the participants imagine or 'hear' a voice delivering the text and, if so, what was the gender? Given our results, we would hypothesize either no voice, or male. Would inclusion of stronger meaningful challenges in a 'challenge' speech delivered by a female speaker in comparison to a male speaker delivering a similar speech cause respondents to perceive leadership in the female speaker, i.e., is there a larger threshold of challenge required for a female speaker to be perceived as a leader?

Both personal/non-coercive and positional/coercive power dimensions have been included in development of the theory. Conventional assumptions about leadership seem to focus on the non-coercive nature of leadership power – people follow leaders because they want to, not because they have to. However, it is evident that some individuals we would classify as leaders also use coercive power to get things done. For example, U.S. President Lyndon Johnson used the power of his office to get the Civil Rights Act passed in 1964, in conjunction with his personal power with Congress and others. While the theory as outlined incorporates these power dimensions, more thought and research is needed to strengthen the leadership construct presented to more fully understand the relationship between leadership and these different kinds of power, and how those who follow perceive and respond to power.

Other concepts that require more rigorous treatment in the theory are meaningful challenge and meaningful resistance to challenge. While we have developed a somewhat precise definition for meaningful challenge – 'application of psychological forces, through communicative and/or physical acts, that disturb the prevailing forces in a group situation in a non-coercive way (as perceived by group members) such that the members perceive the situation differently and are induced to change the quasi-stationary equilibrium state' (with an analogous definition for meaningful resistance to challenge) – the boundary between an existing quasi-stationary equilibrium and a new equilibrium and the precise level of challenge required to move states is

not completely clear. As well, this definition refers to non-coercive power and as per the previous discussion the role of coercive power also needs to be clarified and incorporated as appropriate.

Our research findings have significant ramifications for leadership and management development efforts in a variety of domains. Many organizations, large and small, expend a great deal of effort on developing leaders. We would argue that these efforts are actually focused on increasing the effectiveness of managers (and individual contributors) in their roles, which is largely about acting congruently with system objectives, policies and procedures, and getting others to do so, thus maintaining quasi-stationary equilibrium. As argued earlier, managers and others are not charged with significantly challenging the status quo, nor are they meant to tamper significantly with organizational system stabilizers to bolster them to withstand major external or internal challenges. Improving managerial effectiveness is certainly important: if managers are effective in their roles, their staff may respond well and perform as desired without the need to use much coercive positional power, thereby tending to diminish the oversight load on a manager as well as increasing staff commitment and engagement. But managerial effectiveness is not the leadership essence that individuals seem to more fundamentally seek and respond to in certain situations. Organizations are designed to suppress significant challenges to the status quo and tampering with their system stabilizers, i.e., they suppress leadership emergence.

Boards and corporate executives must ask themselves whether they desire to employ individuals who will challenge, or resist challenges to, the system and status quo. And they must further determine which of these behaviours is appropriate given the environment the organization is operating in and where they want it to go. If there is a desire for leadership to emerge and to mobilize collective action in a way that will not happen without intervention of needed forces, then organizations must be open to significant challenges to the status quo and to major adjustments to their stabilizing mechanisms, enabling managers and staff to act well beyond "the influential increment over and above mechanical compliance with the routine directives of the organization" (Katz and Kahn, 1966). Similarly, politicians, military commanders, and others who wish to show up as leaders must be able to detect whether challenge or resistance to

challenge with respect to a status quo is most appropriate given the extant situation and must then be able to articulate this meaningfully to the population they are trying to appeal to and mobilize. This does not seem to be the understanding and focus of most current leadership development efforts, nor the kinds of behaviours that corporations and other institutions generally encourage. A re-think is needed.

7.   *Connections to Concepts in Other Disciplines*

The experimental and qualitative findings presented above provide supportive evidence for our field theory of leadership. A number of elements in our theory can also be linked to concepts in various other fields of study. These linkages provide additional interesting perspectives and insights that may contribute to further understanding the leadership phenomenon and point to other opportunities for exploration and research. Some examples are given here.

Paradigm shifts – Thomas Kuhn argued in *The Structure of Scientific Revolutions* (Kuhn, 1962/1970) that the history and advancement of science is comprised of revolutions in which the prevailing world view is challenged and ultimately overthrown by new theoretical or methodological approaches that take care of the concerns of the scientific collective who are dissatisfied with the ability of the current state of the field to deal with existing intellectual challenges. Kuhn called these new approaches new 'paradigms'. Over time, a new paradigm becomes 'normal science', i.e., the new paradigm becomes the system, and scientists operate within this new paradigm, and refine and tweak it, until it no longer meets the emerging intellectual challenges and is itself displaced. Thus Aristotelian physics was displaced by Newtonian mechanics which was in turn displaced by relativistic and quantum mechanics. At its most significant, leadership is about paradigm shifts, whether leadership in science, literature, music, politics, and so on – meaningfully challenging entire systems and creating a new social reality that shifts the behavioural forces of a large collective. People then operate over time within the new system in a new quasi-stationary equilibrium – *cf.* normal science – with smaller magnitude challenges to the status quo a feature of the new system.

Systems and variety handling – Our discussion in developing the theory focused on a series of meaningful challenges in the form of communicative and/or physical acts as perceived by an individual and the consequent emergence of leadership. We might also ask how meaningful challenges show up at a system level. To do so it is helpful to explore a powerful concept that sheds more light on systems and quasi-stationary equilibrium – the notion of 'variety' (Ashby 1963, Beer 1974). Variety is a measure of the number of possible states that a system can occupy. For example, a car manufacturer might offer consumers many different options in the design of a vehicle – different models, and for each model a choice of engine (e.g., 4, 6, or 8 cylinders), 2 or 4 doors or hatchback, manual or automatic transmission, manual or power

windows, a choice of several colours, and so on. The various permutations and combinations represent a large amount of variety that can be offered to, and requested by, the consumer. The manufacturer must weigh the cost of supplying this variety (production and manufacturing capability/capacity, labour and inventory costs, etc.) against the value derived from the flexibility offered to customers (e.g., sufficient sales to offset the costs and make a profit, competitive market pressures to respond).

If the variety requested of the system (i.e., generated by customers) is greater than the variety that can be supplied by the system (and supplied in a timely manner), then customers will be dissatisfied and may choose a competitor's product. Conversely, if the variety that is supplied is greater than that requested, then there will be spare capacity and inventory in the system that may be too costly to maintain. Ashby's Law of Requisite Variety states that only variety can absorb variety; moreover, the amount of variety generated must be matched in equal amount by that supplied (absorbed) for a regulated system to achieve stability/equilibrium. If there is an imbalance then either the variety generated must be attenuated (e.g., narrow customer demands or reduce the customer base by offering fewer vehicle options)[10], or that supplied must be amplified (e.g., increase the number of options to serve diverse customer appetites), or there must be some combination of attenuation and amplification.

A system can be characterized as transforming some set of inputs into a set of outputs. We have also noted that a system can occupy a variety of states, including states of equilibrium. A system 'disturbance' is a displacement that moves the system from one state to another (in effect, this is a transformation with the system's states as operands). A dynamic system with regulated feedback mechanisms that maintain quasi-stationary equilibrium will seek to return to an equilibrium state following a disturbance. The time required to restore equilibrium following a disturbance is called the 'relaxation time' of the system. If we represent the system as characterized by transformation 'T', an equilibrium state under T as 'e', and a disturbance operation as 'D', then the state of equilibrium e in the system with transformation T is stable under displacement D if and only if:

$$\lim_{n \to \infty} T^n D(e) = e$$

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[10] Henry Ford once said that customers could order any color of Model T they wanted, as long as it was black. (David Halberstam, *The Reckoning*. New York: Avon Books, 1986, p.90)

All this has relevance to the idea of meaningful challenge, or resistance to challenge, to a system. Successful challenge would involve imposing additional external variety on the system of sufficient magnitude to disturb the equilibrium and overwhelm the system stabilizing forces beyond what regulated feedback is designed to handle, i.e., moving the system to a state from which it cannot regain its previous equilibrium. Successful challenge might also mean successively introducing disturbances at a frequency shorter than the relaxation time of the system, so that the system becomes permanently unstable (even though if left alone following a disturbance it might return to an equilibrium state). Successful resistance to challenge would involve introducing additional internal variety to enable the system to absorb any increase in external variety imposed on it so that it can regain its previous equilibrium. Thus leadership would involve the need to pay significant attention to variety handling of a system, associated attenuation and amplification mechanisms, and opportunities and means to inject or absorb disturbances sufficient to create unstable states (or those at frequencies shorter than the relaxation time of the system, rendering it permanently unstable).

An example of this is Gandhi and his challenges to the British colonial system in India. As per Lewin's observations regarding group change, Gandhi focused on a specific property of the social field/system of meaningful concern to a relevant group: the desire to achieve social justice from the perspective of the native Indian population (Haksar, 2003). He engaged in a series of challenges over decades that introduced external variety to the colonial system, in the form of on-going, non-violent protests. Many soldiers, police, and other officials of the colonial system were offput and baffled by the willingness of Gandhi and the Indian (and other) protesters to continuously engage in non-violent civil disobedience and to willingly be beaten and imprisoned for doing so. The actions of the protesters induced sympathetic feelings and associated psychological forces in many British overseers and others, contributing largely to growing forces of protest and change around the globe that led to eventual Indian independence. The existing colonial system could not amplify its regulatory variety to successfully absorb the newly-generated system variety in the form of on-going group protests, so system states came into existence that the system stabilizers could not regulate and return to equilibrium. As well, the disturbances (protests) were injected much more frequently than the relaxation time of the system.

As we noted in a reference to James MacGregor Burns at the outset, '… no field of study calls for a more difficult and daring crossing of disciplinary borders than does the study of leadership …' (Kellerman, 1984, p.vii). We suspect that other conceptual connections can also be uncovered that might help us further advance our understanding of the phenomenon of leadership.

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Appendices

The Questionnaire

Instructions and Questions for Study Respondents

Thank you for participating in this study.

You'll be reading a short speech, and then answering 9 short questions based on what you've read. It should take 7 – 8 minutes to complete the exercise.

Please read the speech carefully – the success of the study depends on thoughtful responses to what you have read. Some questions will be used to verify that you have read the speech.

It would be best if you read the speech in quiet surroundings. You may re-read the speech or sections of it if you wish before proceeding to the questions.

Please press the button to proceed to the speech page.

1. Please complete the following: "This speech is about _____"

2. What 3 words or phrases would you use to describe the role of someone who gave this speech?
    - i. _____
    - ii. _____
    - iii. _____

3. What 3 words or phrases would you use to describe the impact of the speech on you?

    - i. _____
    - ii. _____
    - iii. _____

4. Where would you rank someone who gave this speech on the following **leadership scale**: #_____

| 1	2	3	4	5
very weak	weak	moderate	strong	very strong
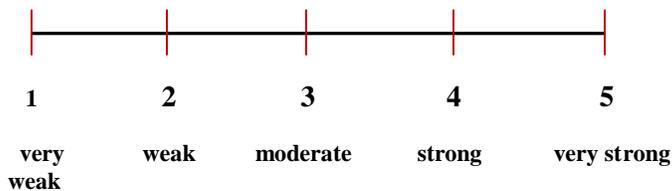
5. Referring to the scale below, please choose the number that best indicates how you would respond to the following statement:
The extent to which I find this speech **moving**: #_____

1	2	3	4	5
very weak	weak	moderate	strong	very strong
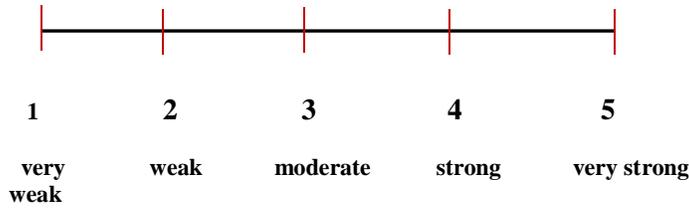
6. Where would you rank yourself on the following scale: #_____

1	2	3	4	5
I don't want to hear anything else from the person who gave this speech		I might consider listening further to the person who gave this speech		I would very much like to hear more from the person who gave this speech
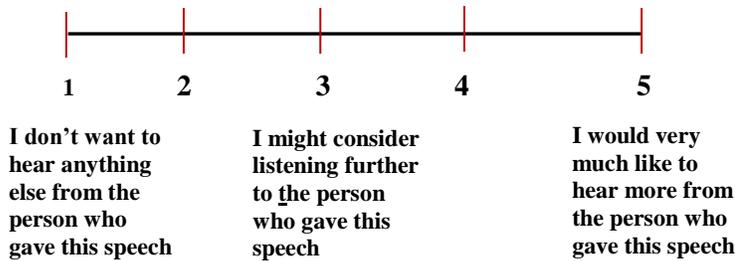
7. Please assess each of the statements below, referring to the following scale:

1	2	3	4	5
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
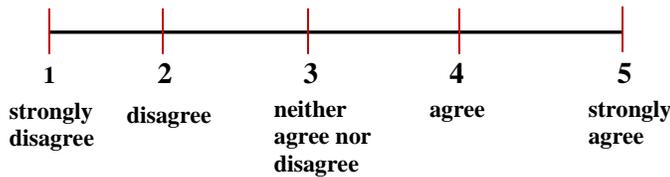
   a) The person who gave this speech provides a good model to follow. #_____
   b) The person who gave this speech inspires me with his/her plans for the future. #_____
   c) The person who gave this speech has stimulated me to think about old problems in new ways. #_____
   d) The person who gave this speech shows respect for my personal feelings. #_____

8. Please indicate whether or not the following phrases are in the speech (Y – yes; N- no):

   Greed can negatively affect people ____

   Non-democratic governments tend to help themselves ____

   Brutes have risen to power ____

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Dictators free themselves ___

Sometimes non-democratic individuals get power ___

Greed has poisoned people's souls ___

9. Do you recognize this speech (Y – yes; N- no)? ___   If yes, from where? _____

10. Please indicate your mother tongue _____

11. Please indicate your highest level of education _____

12. Please indicate your age _____

13. Please indicate your gender _____

14. Please indicate your primary activity, paid or otherwise (e.g., a job, a volunteer role, a student, at home, or other activity – please specify) _____

15. Please indicate household income _____

You have successfully completed this questionnaire – thank you.

Rationale for questions and sequence

The questions and sequence were designed as follows.

The first question is a check to ensure that the participant had actually read the speech and is then answering subsequent questions based on what he/she had read, rather than randomly providing answers.

The second question is meant to elicit perceptions of the reader with respect to someone who would deliver the speech, without biasing or prompting them in answering.[11]

The third question is looking for indications of any psychological movement the reader might be feeling (as per Lewin – does the passage induce a notable psychological force in the reader?)

The fourth question directly asks the respondent about leadership strength as perceived in the speech, while the fifth asks similarly about psychological movement. These two questions and associated Likert scales follow (rather than precede) questions 2 and 3 so as not to bias the qualitative responses in 2 and 3. Note that the respondents could not return to previous questions to change their responses.

The sixth question is intended to glean additional data about how engaged the respondent is by the speech/'speaker'.

The statements in the seventh question are taken from a widely-used scale to assess elements of transformational and transactional leadership (Podsakoff et al, 1990, 1996, reproduced in Barling, 2014, p.116). Each statement relates to one of the dimensions in the literature ascribed to transformational leadership: idealized influence, inspirational motivation, intellectual

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[11] While this question asks to describe the role of someone giving the speech, it does not conflate the phenomenon with the role as critiqued earlier in our discussion. In the case of the conflation, leadership researchers and other individuals assume that because someone occupies a particular role – e.g., CEO, President/Prime Minister, General, religious head, etc. – they are *de facto* exhibiting leadership. The observers are exposed first to the role, then mistakenly assume the phenomenon. In this case, we exposed study participants to the phenomenon first without any reference to a role, and then asked about a role the 'speaker' might occupy. As per Goffman, we're all playing roles all the time, so we were not being directive in asking about a role after-the-fact. In a preliminary test of this part of the study, participants were asked simply how they would describe someone who delivered the speech. The adjectives they used were general – e.g., idealistic, interesting, persuasive, naïve, incorrect, committed, preachy, boring – and didn't adequately capture the nuance and data we were seeking; hence the more specific question about role.

stimulation, and individualized consideration. The intent of this question was to see whether respondents discerned any of these elements in the speeches/speakers and, if so, whether there was a difference in perception of any of these dimensions between the two speeches.

The eighth question was another check on whether the respondent had read the speech, and how accurately.

The ninth question revealed whether the respondent was familiar with the speech, which might have introduced a reactive measurement effect, influencing some of his/her responses.

The tenth question was an additional check on the respondent's ability to understand the speech.

The rest of the questions were for demographic purposes, collecting additional data that might be useful for further analysis (this data was also collected in all subsequent studies).

Appendix 2 – Study 2: Semantic distance study

Compilation of words to assess

Words used by respondents who assessed leadership as 'strong' or 'very strong' (other than the word 'leader' or 'leadership' itself).

Idealistic, educated, thoughtful.
Compassionate, thoughtful, intelligent.
Passionate, perceptive, involved.
Optimist, idealist.
Kindness, help, happiness.
President, Officer of technology/relations.
Psychologist, politician, scientist.
Non-racist, good hearted, wants equality.
Political activist, compassionate, democratic.
Positive thinker, good person, preacher.
Positivity, example.
Philosopher, educator, humanitarian.

Change, enlightened, guide.
Talkative, socially acceptable.
Confident, proud, inspiring.
Sociologist, psychologist, researcher.
Good in people, technology, democracy.
Speech writer, pep talker, politician.
A caring individual, intelligent person, fair person.
Diplomat, manager.
Politician, idealist, soft-hearted.
Moral, helpful, intelligent.
Professor, philosopher, politician.

Flat speech

Revolutionary, progressive, liberal.
Powerful, intelligent, hopeful.
International motivational speaker.
Politician, educator.
Freethinker, unified dreamer, peacemaker.
Pastor, Buddhist monk, humanitarian.
Passionate liberator, revolutionary, game changer.
Empowered, strong, vigilant.
Motivational, empathetic, caring for others.
Writer, orator.
Honorable, caring, empathetic.
Political activist, Democrat, anti-Trump.
Revolutionary, rebel.
Intelligent, caring, loving.
Idealistic, religious, hopeful.
Inspiration, hopeful person.
Pastor, politician, free thinker.
Philosopher, teacher.
Motivating, strong.
Freedoms, fighter.
Optimistic, powerful, thoughtful.
Idealistic, charismatic, optimistic.
Idealist, motivator, peaceful.

Envisioned, opinionated.
Thinker, educator, observer.

Public service announcer, politician.
Motivator, educator.
Idealist, Luddite, caring.
Empowering, strong, important.
Motivator, protestor, rebel.
Activist, Democrat, revolutionary.
Politician, Pastor, teacher.
Motivator, preacher.
Passionate, libertarian.
Passionate, carefree, hopeful.
Inspirational, motivator.
Influencer, role model.
Motivator, trail blazer.
Politician, freedom fighter.
Not a follower, teaches some false doctrine.
Student, advocate, protester.
Opinionated, pacifist, benevolent.
Dedicated to a great cause, devoted to great change, amazing
Motivating, uplifting, inspiring.
Ranting, convicted.
Freedom fighter, someone who wants best for world
Citizen of the world, an open minded person, a person who is angry with current state of the world
President, war general, political candidate.
Persuasive, determined.

Challenge speech

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Questionnaire

Instructions for Study Respondents

Thank you for participating in this study.

You'll be reading 20 words or phrases, one at a time, and then you'll be ranking each word or phrase on a scale indicating how similar in meaning you feel it is to the word "leader". It should take 3 – 4 minutes to complete the exercise. First you'll be shown all 20 words and phrases, and then you'll proceed to the page where you rank them one at a time.

Here are the 20 words or phrases you'll be ranking. You'll be seeing them in random order.

international motivational speaker
persuasive
pep talker
important
a person who is angry with current state of the world
sociologist
Writer
Amazing
libertarian
Moral
Optimist
teaches some false doctrine
Protestor
Orator
Religious
Example
devoted to great change
Luddite
revolutionary
Guide

Please press the button to proceed to the ranking page when you are ready.

Please rank each word or phrase on the following scale:
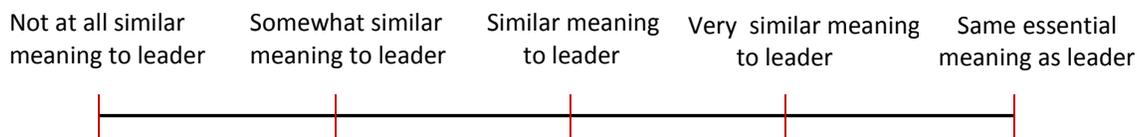
Not at all similar meaning to leader	Somewhat similar meaning to leader	Similar meaning to leader	Very similar meaning to leader	Same essential meaning as leader

You have successfully completed this questionnaire – thank you.

Instructions: You'll be reading a speech and then be asked to assign a weighting to various phrases in the speech, indicating how positive, how negative, or neutral they are. The weightings are shown in the scale below.
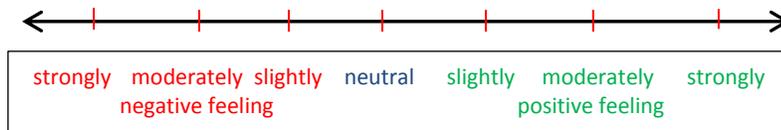
For example, if you read the phrase "people can be joyful" and you feel it is positive, you would rank the phrase as slightly, moderately, or strongly positive, depending on how strongly you feel. Similarly, if you read the phrase "people are suffering" and you feel it is negative, you would rank the phrase as slightly, moderately, or strongly negative. If you read the phrase "apples are red" and you feel it is neither positive or negative, you would rank it neutral.

For each phrase that you assess from the speech, you will also be shown a second phrase and asked to assess this phrase as well. The phrases will be shown in pairs. There are 27 pairs in total. Please evaluate all the phrases.

The exercise has two parts: first, you will read the speech, and then you will evaluate various phrases from the speech as well as a second phrase. It should take about 8 – 10 minutes to complete the exercise.

**Comparisons of speech passage pairs: type (flat or challenge respondents)
and associated valences**

The table below shows a summary and comparison of the valences for various paired passages from each speech. The "Speech passage" column shows the passage pairs; the "Respondents" columns show the valence values assigned to each of the passages (ranging from -3/strongly negative to +3/strongly positive), by group (those who read the flat speech and those who read the challenge speech). For each passage the mean value of the individual respondent scores was calculated. Passages that were perceived to have a negative mean valence are shown in red.

Valence table for the two speeches

Speech passage	Flat		Challenge	
	mean		**mean**	
	flat	challenge	flat	challenge
Pair 1.				
i) People want to help one another. People are like that. They want themselves and others to be happy - not unhappy.	2.01		1.89	
ii) We all want to help one another. People are like that. We want to live by each other's happiness - not by each other's misery.		1.96		2.22
Pair 2.				
i) They don't want to be at odds with, and upset, one another.	1.22		0.98	
ii) We don't want to hate and despise one another.		0.88		1.31
Pair 3.				
i) The world has room for everyone. The earth is good and rich and can provide for everyone. People can be free and life can be beautiful.	2.22		2.33	
ii) a) The world has room for everyone. And the good earth is rich and can provide for everyone. Life can be free and beautiful …		2.09		2.41
b)… but we have lost the way.		-1.46		-1.33
Pair 4.				
i) a) Greed can negatively affect people.	-1.34		-1.31	
b) It can cause inequality and envy …	-1.49		-1.54	
c) … unhappiness and conflict.	-1.91		-1.76	
ii) a) Greed has poisoned people's souls …		-2.25		-2.17
b) … has barricaded the world with hate …		-2.24		-2.37
c) … has goose-stepped us into misery and		-2.34		-2.35

	bloodshed.				
Pair 5.					
i)	Technology can give people speed, and can also isolate them. Machinery that gives abundance can also leave people in want.	-0.52		-0.76	
ii)	We have developed speed, but we have shut ourselves in. Machinery that gives abundance has left us in want.		-1.01		-1.24
Pair 6.					
i)	More knowledge sometimes seems to result in cynicism. More cleverness sometimes seems to result in more hardness and unkindness. People sometimes think too much and feel too little.	-1.1		-1.19	
ii)	Our knowledge has made us cynical. Our cleverness, hard and unkind. We think too much and feel too little.		-1.33		-1.59
Pair 7.					
i)	People can be more kind, gentle, and caring, not just happy with the benefits of technology and being clever.	0.9		1.36	
ii)	More than machinery and technology we need humanity. More than cleverness we need kindness and gentleness.		1.00		1.17
Pair 8.					
i)	With these qualities, life can be more rewarding, less violent, and generally improved.	1.39		1.51	
ii)	Without these qualities, life will be uncaring and violent and all will be lost.		-1.64		-1.43
Pair 9.					
i)	The airplane and the internet have brought people closer together.	1.4		1.26	
ii)	The airplane and the internet have brought us closer together.		1.33		1.3
Pair 10.					
i)	These technologies and systems can be used to bring out the goodness in people - for bringing	1.82		1.91	

	unity, benefits, and more freedom.		
ii)	The very nature of these inventions cries out for the goodness in people, cries out for universal brotherhood and sisterhood.	1.33	1.38
Pair 11.			
i)	However, they can also be used for undesirable ends that hurt others.	-1.4	-1.47
ii)	Yet millions of despairing men, women, and little children are victims of systems and enforcers that diminish, neglect, imprison and torture innocent people.	-2.28	-2.19
Pair 12.			
i)	People can strive to be optimistic.	1.49	1.66
ii)	I say: do not despair.	0.9	1.21
Pair 13.			
i)	Progress is always possible if everyone is willing to work together and not be greedy.	1.12	1.4
ii)	The misery that is now upon us is but the passing of greed - the bitterness of those who fear human progress.	-1.19	-0.75
Pair 14.			
i)	People without good intentions usually don't succeed in the long run.	-0.34	0.19
ii)	The hate will pass, dictators will be overthrown and die, and the power they took from the people will return to the people.	0.61	1.4
Pair 15.			
i)	Most people have good intentions, and so the majority can succeed if they want to work at it.	1.48	1.89
ii)	And so long as we are willing to fight and die, liberty will never perish.	1.19	1.23
Pair 16.			
i)	People who have good intentions can direct things to everyone's benefit.	1.48	1.72
ii)	People! Don't give yourselves to brutes – men		

		and women who despise you, enslave you, regiment your lives, tell you what to do, what to think and feel!	0.15	0.26
Pair 17.				
	i)	People who don't care, who are greedy, who want to take advantage, who like conflict, who want to use technology only to their own advantage, don't do this.	-0.6	-0.75
	ii)	Who drill you, starve you, threaten you, treat you like cattle, use you as cannon fodder. Don't give yourselves to these unnatural souls, with machine minds and machine hearts! You are not machines! You are not cattle!	-0.43	-0.36
Pair 18.				
	i)	Those who believe in the goodness of humanity can build healthy relations with others and thereby help to improve the lot of all people.	1.66	2.08
	ii)	You are people! You have the love of humanity in your hearts! You don't hate! People! Don't fight for slavery! Fight for liberty!	1.66	1.79
Pair 19.				
	i)	A proverb says that "the divine is within man" – not one man or a group of men, but in all women and men.	1.49	1.81
	ii)	A wise proverb says: "the divine is within man" - not one man nor a group of men, but in all women and men! In you!	1.58	1.89
Pair 20.				
	i)	Men and women are generally good, creative, and want to be free, have good work and have great adventures.	1.76	2.15
	ii)	You, the people, have the power to make this life free and beautiful, to make this life a wonderful adventure.	2.03	2.32
Pair 21.				
	i)	Society can have institutions and technology that enable and support this.	0.84	1.08
	ii)	You, the people have the power - the power to		

create great technology, useful machines, and strong institutions. The power to create happiness!	1.79		2.34
Pair 22.			
i) Democracy enables us to use human power to cooperate together to have a decent world that will give everyone a chance to work, to be free, to be happy – whether young, or old.	1.57	1.94	
ii) Let us fight for and create a new world – a decent world that will give all men and women a chance to work, to be free, to be happy – that will give youth a future and old age a security.		1.66	2.19
Pair 23.			
i) Non-democratic approaches promise these things, and sometimes non-democratic individuals get power, but this doesn't work sustainably and never will work the way it should. Non-democratic people often don't tell the truth, and often don't keep their promises.	-0.94	-0.81	
ii) By the promise of these things, brutes have risen to power. But they lie! They do not fulfil that promise. They never will! Then – in the name of democracy – let us use that power – let us all unite.		-0.03	0.42
Pair 24.			
i) Non-democratic governments tend to help themselves, but they tend not to help their citizens.	-1.31	-1.62	
ii) Dictators free themselves but they enslave the people!		-1.99	-2.0
Pair 25.			
i) People can make sure that democracy is successful for everyone, here and elsewhere in the world, to increase good for all.	1.48	1.7	
ii) Now let us fight to fulfil that promise! Let us fight to free the world, to do away with barriers,		1.37	1.49

with greed, with hate and intolerance.				
Pair 26.				
i)	People can strive to be reasonable, to use science and progress to do things that help all to be happy and to work against things that don't.	1.37		1.79
ii)	Let us fight for a world of reason, a world where science and progress will lead to happiness for all.		1.67		1.92
Pair 27.				
i)	That way, democracy can succeed.	1.15		1.66
ii)	People! In the name of democracy, let us all unite!		1.73		2.28

    Study 4, Part 1 - Questionnaire

Instructions and Questions for Study 4 Respondents (perceived acts of leadership)

Thank you for participating in this study.

We are investigating perceptions of leadership. You'll be answering 4 questions about your experiences with leadership. It should take about 10 minutes to complete the exercise.

Please reflect on a time when you experienced an act of leadership. This could be either:

> ➢ a direct personal experience (for example, a situation at work or in your personal life), or
> ➢ an indirect experience (for example, a situation that you've read about or seen in a movie).

1. Please select the **<u>one best</u>** category from the following list that your example falls into:

        a. Personal/family
        b. Work
        c. Sports
        d. Political/historical
        e. Military
        f. Religious
        g. Other (please specify) _____

2. Briefly describe the situation and what happened.

        _____
        _____
        _____

3. What are specific examples of things that the leader (or leaders) did in this situation that you consider to be acts of leadership?

        i.   _____
        ii.   _____
        iii.   _____

4. How did others respond to the acts of leadership you've listed above? What, specifically, did they say/do?

        _____
        _____
        _____

Qualitative responses re: acts of leadership

1. My supervisor needed to know how to reply to an email and solve a certain situation. I sat at his desk and showed him how to do his job.

2. When my job was looking for a new pharmacist, I stepped up as a tech to make sure everything ran smoothly while people were filling in.

3. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.

4. In "Remember the Titans" when the black and white football players are not getting a long during training camp, Gerry Bertier starts to change tune after a conversation with Julius Campbell about his behavior and the example it sets for the other players. During one training session he displays an attitude change and interacts with Julius in a more positive manner. The other players soon follow suit.

5. My son got sick over the weekend and the doctor's office was closed. I had to decide whether to continue the medication that was making him sick or risk his returning infection.

6. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

7. I'm a mother of young children, I have leadership on a daily basis – deciding where to go, what to eat, what time to go to bed.

8. A family member is very sick and decisions about best means of care need to be made.

9. This would be considered an indirect experience as the story was told to me – an experience my daughter had for a class at school. In this class the instructor assigned a group project and randomly picked the teams. Initially, everyone that ended up in her team sounded enthusiastic about the project and seemed willing to contribute. As time went on however, the majority of the group was not contributing their fair share and it

seemed as if those members were sort-of blowing off this project to some degree. However, there was one male student who kept trying to keep it all together by putting forward great work and trying to get everyone in the group to do their fair share. No group leader was assigned initially, but as time went on this male member of the group took the lead and everyone else in the group seemed to follow. My daughter didn't want to be the group lead really so he said she was glad when someone stood up to take the mantle. In the end, even with a few sub-par group members, the project was a success largely due to the efforts of this guy who took charge.

10. At my job, I am constantly seeing good examples of leadership. Earlier this quarter, my team experienced some negative feedback from clients through our supervisor. Our supervisor called us all in and allowed us to review our performance both individually and collectively over the last three months. She commended our team growth, shared the complaints, and allowed us time to develop a plan to become more productive.

11. My manager required me to stop the project I was working on at the time and switch to a new project. The new project turned out to be a success.

12. Taking family pictures I had the list of needed poses and such. I was in charge.

13. All of the senior accountants were sitting for the CPA exam at my job, and I was the first one to finish. It made me the de facto leader who my peers would come to for advice and help with the exam.

14. My supervisor took over inventory management after our VP was let go. He spent nights and weekends doing the research on how the database worked, and did this for about four months.

15. A time when I was in a leadership position was when I was in charge of a group of people and had to create a project from start to completion. I led them and was responsible for how they completed the project. I instructed them, led by example, helped and guided them, observed them, evaluated them, and made sure things went according to a specific plan.

16. We were having a "firedrill" at work. Our boss remained calm and dealt with tough clients and hard deadlines. They directed all of us calmly on what to do and navigated us through an otherwise stressful situation. We could have lost our contract but instead produced good work and ended up looking favorable.

17. I had a team of employees that I was in charge of providing information and guidance for solving technical problems.

18. I was part of a small group of workers at a store and the boss had to show his leadership on occasion. There was once a worker who was constantly late and overall a bad worker. As a leader he had to step up and make an example of this worker so he fired her. He had to show leadership and make sure that the store was run properly with dedicated workers.

19. In high school my coach was a great leader of our team and would inspire us to perform beyond what we were naturally capable of.

20. Manager Joe Maddon leads the Chicago Cubs to their first world series championship in 108 years.

21. I was singing for a minister whose partner was dying from brain cancer. We were good friends, and I sang for him the week before his partner died. Listening to his talk for the week about finishing what you start and working through the hard times in life I knew I was witnessing a man who lived his words, and was the embodiment of the message he wanted to share.

22. I was a fire team leader when I was in the Marine Corps. I was directly responsible for 4 Jr. Marines under my charge.

23. Years ago I worked in school foodservice. It was a Saturday and I was there doing a Saturday detention program with approx. 40 high school kids. The plant manager was also there on the grounds on a separate job. At approximately 11am the power went out in the entire school and the generators did not come on. All I could think of was the $10,000 worth of food that was in the kitchen refrigerators and freezers. I messaged the plant manager and asked him what to do. He immediately took over the situation and made the decision to send everyone home early and he and I loaded up his truck with all of the food from the freezers and refrigerators and drove it down to the closest school in the district that had power that was ten miles away. We unloaded the food into their freezers. He had keys to all the buildings so it was no trouble entering the buildings on a weekend. I was grateful for him to take over and show such leadership as $10,000 worth of food would have been lost if he was not there to take over as the power was out at the school for one week.

24. My manager went far out of her way to help us and make sure we were able to do work.

25. When my mother was diagnosed with dementia, I had to take over her whole life basically. I had to take her to the bank and speak with the bank representative about her money situation and make decisions about what to do with her money.

26. After having a violent altercation with my ex, I was forced to call out from work to obtain a restraining order. My manager assured me everything would be fine and upon returning to work no one was aware what had occurred. It was up to me to explain. Meanwhile she obtained additional staff members to assist with the work load so it didn't inconvenience my team.

27. My 7 year old son took it upon himself to delegate and organize his siblings to get a series of tasks completed.

28. A time when I experienced an act of leadership was when I had to take charge of a group of non-performers at work and re-train them with new sales skills.

29. I'm a nurse and I've been one for about 3 years. I was working in a nursing home when I experienced my first code. A man on my wing went into cardiac arrest. It would have been very easy to panic in that situation but we had an amazing RN who immediately gave instructions and got everyone organized. He started CPR and just instantly had everyone doing what was needed.

30. When I had to step in and be in charge of a group of 3 people when the senior on the project left for another job. I had to plan the audit, assign work for team members, and review the work of team members.

31. Softball team was losing. I boosted morale and coached team to a win.

32. I made a decision to organize a trip for a student group that helped students experience the city.

33. I am the leader of a department, I show leadership every day.

34. We had a new supervisor come in and she was able to organize and streamline a number of different departments that originally were working at odds with each other and not getting along at all.

35. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

36. I was president of my fraternity my junior year in college and responsible for about 90 members. I had lots of responsibility and essentially had to lead all initiatives and operations.

37. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

38. I was working security at a twelve story office building and there was an emergency on the 5th floor. An ambulance was called and I had to get people in the lobby to stand back so the emergency people were able to get on an elevator. I locked the elevator down and commandeered the people in the lobby to make way and stand back and I quickly led the emergency workers to the elevator and unlocked it and sent them to the 5th floor. Due to my leadership and quick actions the emergency workers were able to get to the 5th floor with no delay.

39. An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work.

40. I was in charge of a writing project in an English class a while ago. I had to distribute the workload and tie all of my peer's thoughts into a single paper we submitted.

41. I was at work and we needed to finish a project but not everybody was sure what they needed to do. I took over and explained things to people in the simplest terms that I could and let them know that time was of the essence. We were able to complete the project in a satisfactory manner and certainly on time.

42. Our elementary school teacher had been a Marine and a taxi driver, and he believed in teaching children to do the right thing. On the last day of school, a gang of punks from the Junior High School several miles away blocked our exit door. No one could get out! He stepped immediately forward and solved the problem.

43. I am a CEO and I constantly have to make decisions that are both good for the company as well as good for employees. Sometimes the two things don't mix. Last year we outsourced a lot of our data work to a company in India. This saved us roughly 90% on the employees we terminated, but allowed our business to succeed.

44. I had to lead my team of 4 other people in a competitive video game.

45. A customer was upset and my boss took charge and decided to be a leader and help the customer. The situation was defused and everything was great.

46. I worked at a place where I trained employees.

47. Our superintendent organized a strategic planning process with all the stakeholders in our organization. We met and developed actions to work on for the next 5 years that were important in several areas.

48. We had a large group project at work where nobody was doing what they should have been doing. A co-worker took hold of the group and decided to give everyone specific roles to ensure that we were able to finish on time.

49. We had lost our slugger in our championship baseball game. He had a broken wrist. Because of this guys were down in the dumps. I talked about how it was important to do our jobs. I stressed the great things we did and how we all have roles. I also talked about playing small ball and manufacturing runs.

50. I serve along the Youth pastor at my church to help out with the Teen ministry.

51. I am a system administrator and we had a machine that wound up getting crypto-locked. I had to direct my team members to go and get that computer and remove it from the network as fast as possible after they had to drop the things that they were in the middle of doing. In the end they were able to get the machine and get it off the network and we prevented a catastrophe.

Perceived Strength of Acts of Leadership

Thank you for participating in this study.

We're investigating perceptions of leadership. You'll be reading 17 brief descriptions of acts of leadership that various people have written based on their own experiences. You'll read the descriptions one at a time, and then you'll rate each description on a scale indicating how strongly you feel it describes leadership. It should take about 5- 6 minutes to complete the exercise.

First you'll be shown the scale and 3 sample descriptions, and then you'll proceed to the page where you rate the descriptions one at a time.

Here is the scale you'll be using to do the ratings:

Where would you rate this description of an **act of leadership** on the following **leadership scale**:

very weak	weak	moderate	strong	very strong
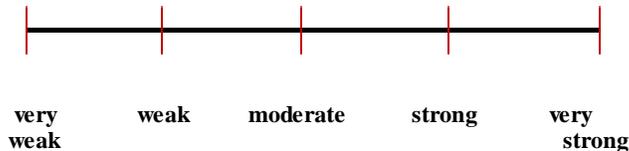
Here are 3 sample descriptions:

1. My 7 year old son took it upon himself to delegate and organize his siblings to get a series of tasks completed.

2. A time when I experienced an act of leadership was when I had to take charge of a group of non-performers at work and re-train them with new sales skills.

3. I'm a nurse and I've been one for about 3 years. I was working in a nursing home when I experienced my first code. A man on my wing went into cardiac arrest. It would have been very easy to panic in that situation but we had an amazing RN who immediately gave instructions and got everyone organized. He started CPR and just instantly had everyone doing what was needed.

When you're ready, please proceed to the page with the descriptions that you'll be rating.

Respondent descriptions of strong and weak leadership

Rating scale:
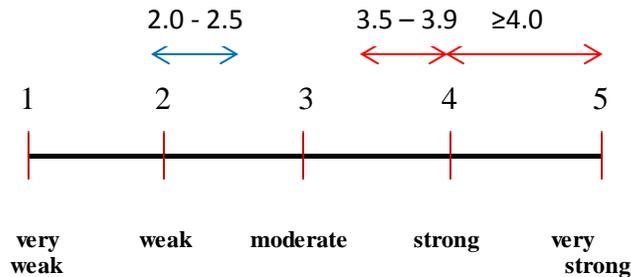
≥4.0 – perceived strong leadership

4.5 Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good. (#37)

4.3 I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate. (#35)

4.2 When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings. (#6)

4.1 I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area. (#3)

4.0 A time when I was in a leadership position was when I was in charge of a group of people and had to create a project from start to completion. I led them and was responsible for how they completed the project. I instructed them, led by example, helped and guided them, observed them, evaluated them, and made sure things went according to a specific plan. (#15)

4.0 Years ago I worked in school foodservice. It was a Saturday and I was there doing a Saturday detention program with approx. 40 high school kids. The plant manager was also there on the grounds on a separate job. At approximately 11am the power went out in the entire school and the generators did not come on. All I could think of was the $10,000 worth of food that was in the kitchen refrigerators and freezers. I messaged the plant manager and asked him what to do. He immediately took over the situation and made the decision to send everyone home early and he and I loaded up his truck with all of the food from the freezers and refrigerators and drove it

down to the closest school in the district that had power that was ten miles away. We unloaded the food into their freezers. He had keys to all the buildings so it was no trouble entering the buildings on a weekend. I was grateful for him to take over and show such leadership as $10,000 worth of food would have been lost if he was not there to take over as the power was out at the school for one week. (#23)

3.5 – 3.9 – perceived 'marginally strong' leadership

3.9 In "Remember the Titans" when the black and white football players are not getting a long during training camp, Gerry Bertier starts to change tune after a conversation with Julius Campbell about his behavior and the example it sets for the other players. During one training session he displays an attitude change and interacts with Julius in a more positive manner. The other players soon follow suit. (#4)

3.8 Manager Joe Maddon leads the Chicago Cubs to their first world series championship in 108 years. (#20)

3.8 I'm a nurse and I've been one for about 3 years. I was working in a nursing home when I experienced my first code. A man on my wing went into cardiac arrest. It would have been very easy to panic in that situation but we had an amazing RN who immediately gave instructions and got everyone organized. He started CPR and just instantly had everyone doing what was needed. (#29)

3.8 I was working security at a twelve story office building and there was an emergency on the 5th floor. An ambulance was called and I had to get people in the lobby to stand back so the emergency people were able to get on an elevator. I locked the elevator down and commandeered the people in the lobby to make way and stand back and I quickly led the emergency workers to the elevator and unlocked it and sent them to the 5th floor. Due to my leadership and quick actions the emergency workers were able to get to the 5th floor with no delay. (#38)

3.8 When my job was looking for a new pharmacist, I stepped up as a tech to make sure everything ran smoothly while people were filling in. (#2)

3.7 We were having a "firedrill" at work. Our boss remained calm and dealt with tough clients and hard deadlines. They directed all of us calmly on what to do and navigated us through an otherwise stressful situation. We could have lost our contract but instead produced good work and ended up looking favorable. (#16)

3.6 I was president of my fraternity my junior year in college and responsible for about 90 members. I had lots of responsibility and essentially had to lead all initiatives and operations. (#36)

3.6 This would be considered an indirect experience as the story was told to me – an experience my daughter had for a class at school. In this class the instructor assigned a group project and randomly picked the teams. Initially, everyone that ended up in her team sounded enthusiastic about the project and seemed willing to contribute. As time went on however, the majority of the

group was not contributing their fair share and it seemed as if those members were sort-of blowing off this project to some degree. However, there was one male student who kept trying to keep it all together by putting forward great work and trying to get everyone in the group to do their fair share. No group leader was assigned initially, but as time went on this male member of the group took the lead and everyone else in the group seemed to follow. My daughter didn't want to be the group lead really so he said she was glad when someone stood up to take the mantle. In the end, even with a few sub-par group members, the project was a success largely due to the efforts of this guy who took charge. (#9)

≤2.5 – perceived weak leadership

2.1 Taking family pictures I had the list of needed poses and such. I was in charge. (#12)

2.2 I am the leader of a department, I show leadership every day. (#33)

2.3 I had to lead my team of 4 other people in a competitive video game. (#44)

2.4 An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work. (#39)

2.5 My son got sick over the weekend and the doctor's office was closed. I had to decide whether to continue the medication that was making him sick or risk his returning infection. (#5)

2.5 All of the senior accountants were sitting for the CPA exam at my job, and I was the first one to finish. It made me the de facto leader who my peers would come to for advice and help with the exam. (#13)

2.5 I worked at a place where I trained employees. (#46)

2.5 I serve along the Youth pastor at my church to help out with the Teen ministry. (#50)

Commonalities and Differences Between Strong and Weak Leadership

Thank you for participating in this study.

We're investigating perceptions of leadership. You'll be reading 8 brief descriptions of acts of leadership that various people have written based on their own experiences. 4 of these descriptions have been rated "strong leadership" and 4 have been rated "weak leadership". These ratings were assigned by a second group of individuals who reviewed the descriptions.

There are 3 parts to this exercise.

You'll begin by reading two groups of descriptions: first the 4 "strong" descriptions and then the 4 "weak" descriptions.

You'll then read the "strong" descriptions again, and answer a question about what you think is **common between** the descriptions.

Then you'll read the "weak" descriptions again and answer the same question about them.

Finally, you'll read both sets of descriptions again, "strong" and "weak", and answer a question about what you feel is **different between** them.

It should take about 6 - 8 minutes to complete the exercise.

Here are the 8 brief descriptions. Please read them now and when you're ready proceed to the next page.

"Strong" descriptions of leadership

1. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

2. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

3. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

4. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.

5. Taking family pictures I had the list of needed poses and such. I was in charge.

6. I am the leader of a department, I show leadership every day.

7. I had to lead my team of 4 other people in a competitive video game.

8. An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work.

Please proceed to the next page.

Please read the "strong" descriptions below again.

"Strong" descriptions of leadership

1. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

2. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

3. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

4. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.

In your view, what is **common between** these 4 "strong" descriptions? Write your answer below.

Please read the "weak" descriptions below again.

"Weak" descriptions of leadership

1. Taking family pictures I had the list of needed poses and such. I was in charge.

2. I am the leader of a department, I show leadership every day.

3. I had to lead my team of 4 other people in a competitive video game.

4. An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work.

In your view, what is **common between** these 4 "weak" descriptions? Write your answer below.

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Now, please read all 8 descriptions again.

"Strong" descriptions of leadership

1. Abraham Lincoln was a man who was very steadfast in his beliefs, had great integrity and courage – signed the Emancipation Proclamation, stood up against those who would wrong others in our country, urged others to fight in the Civil War for the greater good.

2. I was at a swim meet practice and was a senior in high school. I also had some medical training background, specifically with CPR/First Aid and epilepsy. All of a sudden my classmate began having a seizure. I was lucky to be right beside him as I knew exactly what to do and others were in shock and just staring. I began directing the situation and telling people what to do and telling them to get 911 on the phone. I even stopped my coach from doing something that could have hurt the seizing teammate.

3. When my aunt died, my cousin stepped up to the plate for his brothers and sisters and handled the entire situation. He remained calm, set up the funeral service, made sure everyone could be there, organized the procession, arranged places for everyone to stay, and still found time to mourn and talk with everyone about their feelings.

4. I organized a peace march in downtown Portland, OR. The issues were regarding the lack of affordable housing in the area.

"Weak" descriptions of leadership

1. Taking family pictures I had the list of needed poses and such. I was in charge.

2. I am the leader of a department, I show leadership every day.

3. I had to lead my team of 4 other people in a competitive video game.

4. An example of leadership was the moment I was named warehouse chief in the concession of spare parts where I work.

In your view, what is **different between** these 4 "strong" and 4 "weak" descriptions? Write your answer below.

Thank you for participating in this study.

Data and Analysis

Commonalities and Differences – Summary of Results

Strong/weak respondents

1.

   a. Coherent, specific, well organized.
   b. Brief, vague; the "strong" descriptions are well constructed.
   c. The "weak" descriptions are very brief and don't provide specific examples.

2.

   a. They describe people taking charge during very stressful situations. They are able to rise up and lead others when no one else can.
   b. These are more everyday leadership roles and do not involve much stress, risk or great sacrifice. The descriptions are not very complete and they just seem like everyday situations.
   c. The strong descriptions describe very challenging situations and situations that potentially require great sacrifice and for a person to show great courage. The weak descriptions describe leadership roles that are safe and do not involve much risk or a great sacrifice.

3.

   a. Going out of your way, above and beyond, to do the right thing.
   b. These are basic things, some just come with the territory, ex of the leader leading every day, that's his job. Nothing extraordinary.
   c. Weak is not extraordinary, strong is extraordinary, strong clearly is making an effort while weak is not.

4.

   a. Taking responsibility for something.
   b. Not having the initiative.
   c. Using strong leaders to determine what is important.

5.

   a. Strong and decisive actions.
   b. Less directed goals.
   c. ------

6.

   a. They are put in charge of a specific/significant (possibly life changing) event, and they put forth an effort to lead/guide people.
   b. While being in charge, the event is vague, and not that significant.
   c. The strong leadership examples are where one makes a physical effort to lead/guide people through a significant event, where the weak examples are not specific; they're more like everyday occurrences.

7.
   a. Taking control.
   b. No real details.
   c. Strong was doing good for others.

8.
   a. All of these give specific details as to why they were examples of leadership. They also are all admirable.
   b. What's common between these descriptions is that they don't go into detail. There's also the fact that none of these examples are admirable. They're more examples of being in charge that of being a true leader.
   c. The strong descriptions all involve being selfless and doing things for others, while the weak descriptions are not selfless at all (although they aren't selfish either) but they come across as more bragging than being a leader.

9.
   a. There was a meaningful way in which leadership was displayed.
   b. The examples in leadership are insignificant.
   c. strong leaders were exemplary whilst weak leaders were less than idealistic.

10.
   a. Responsibility.
   b. Nonrelevance.
   c. The level of real responsibility.

11.
   a. They are very descriptive, actually go into detail of what they did.
   b. Not enough information.
   c. The 4 strong ones tell more in detail about a situation as to the weak ones are just short answers.

12.
   a. They all have an element of adversity or opposition that the leader is facing.
   b. There is nothing particularly out of the ordinary or challenging about the situations described.
   c. The strong leaders were in situations where there was some challenge that was not part of everyday life for most people. There were often decisions to be made. The weak leaders were involved with more everyday scenarios.

Weak/strong respondents

13.
   a. They are all vague descriptions of leadership.
   b. Each person was working toward the greater good where they did not benefit personally.

c. The 4 weak descriptions are all about the person themselves getting to lead a group. The 4 strong descriptions are the opposite, about leading a group not for personal gain, but for the better of the whole.

14.
   a. They are very brief. There is not much detail to them. They are not too descriptive; they are very general.
   b. They are very detailed. The descriptions of leadership demonstrate true leadership qualities and not just examples of people 'in charge.' They are for the most part very descriptive.
   c. The level of detail between the descriptions is definitely different. The types of leadership that are being described is also different as well. The 'strong' descriptions seem to, in at least some way, have more meaning.

15.
   a. All are a bit vague.
   b. Very detailed, large responsibilities.
   c. ------

16.
   a. They are pretty self-centered and more about telling someone about their actions than the actual actions themselves.
   b. These descriptions included actions that were taken and seemed to be more about how they led people as opposed to just saying they were a leader.
   c. Weak leadership descriptions sound like someone is trying to prove themselves to other people by their words. The strong leadership describes what actions that these leaders took in order to have strong leadership. They explained what needed to be done in order to be a strong leader.

17.
   a. The description of leadership wasn't very specific, nor as important as the strong descriptions.
   b. The strong descriptions went into great detail about the leadership skills and the leaderships had more importance.
   c. Not much description in the weak leadership positions, while there were several details in the strong. The strong descriptions appeared to have a lot more meaningful ways of showing leadership also.

18.
   a. Short descriptions. All seem rather "self-centered". A lot of use of the word "I". Not very specific. All trivial, non-important things.
   b. They all involve praising other people. Not so self-centered. Very descriptive. All doing important things . All doing things to help other people.
   c. The weak ones all had it foisted upon them. Appointed, they did not volunteer and their actions only really benefited themselves. The strong ones all volunteered and all their actions were to the benefit of other people.

19.
   a. They are small scale issues and none have drastic life changes or lives being in danger at all.
   b. These required actual events that tested ones leadership in leading people or helping save or change a life.
   c. The scale of leadership in the fact that stronger leadership has higher stakes and calls to action more involvement and shows actual events of being tested in a life altering moment.

20.
   a. They state that a certain person is in charge, but nothing else. No description or explanation to why they earned that position.
   b. They go into more detail and explain why a certain person was a leader and how they showed their leadership.
   c. The weak ones were just stating they were leaders while the strong ones explained why they were leaders.

21.
   a. They lack details.
   b. They have a lot of descriptive details.
   c. The difference is that the weak descriptions lack descriptive details and the strong descriptions say specifically what the person did to show leadership.

22.
   a. Very simple and generic examples. No descriptive examples provided.
   b. Very descriptive situations. All scenarios showed calmness and fortitude.
   c. More concrete examples in the strong descriptions.

23.
   a. Talking about themselves. Assigned to be person in charge but never actually giving an example of leading.
   b. All show examples of leadership.
   c. Strong descriptions show actual examples of leadership.

24.
   a. They all seem rather vague, and they also all seem kind of passive.
   b. They go into detail about all they did, providing steps or details.
   c. The "weak" descriptions all display a sense of passiveness, which seems out of place due to the subject being leadership. The "strong" descriptions all include steps or details, detailing what exactly the person in the leadership role did and how they made a difference.

25.
   a. Leadership in name, appeal purely to the position without explaining what actions were taken to lead.

b. Explains the specific how's of leadership, what the person did to concretely define them as a leader.
c. Weak descriptions just name positions you have been given, strong descriptions name actions you have taken.

26.
a. None are very descriptive of what they actually did in their lead roles. It's fine to say "I was in charge" but one needs to expand upon that.
b. Each of these expands upon what was done as a leader and why it was done.
c. The difference really is the description of what was done as a leader or why it was done. The first 4 don't give a reason for the lead role or what was done in a lead role. The last 4 do.

27.
a. They don't list anything specific -- they think they were in charge but have no evidence for it.
b. These people all have strong evidence for these people acting as leaders. They can back their arguments up with data.
c. The weak descriptions are very brief and lacking in detail. Some of the leadership seems very unimportant, like in video games. They are all about how these individuals are leaders. The strong descriptions are longer and detailed and all about the greater good.

28.
a. No examples of why they had leadership.
b. Gave examples of why they had leadership.
c. The weak descriptions did not show why they had leadership and the strong descriptions showed why they had leadership skills.

29.
a. They thought they were in charge but didn't do anything.
b. They actually led.
c. The weak ones didn't actually lead while the strong ones did.

30.
a. Generic descriptions, smaller projects with short term effects.
b. Detailed, affect a lot of people, long term effects.
c. Detail, number of people affected by their leadership, how lasting the impact is.

31.
a. Leadership and diligence.
b. Self-reliant and couragement.
c. It differs in several things but they both had the same outcome. It's all about life. Being strong and observant to the things has a major role.

32.

    a. There is no "I " in team and that is what each of these sentences have. Pretty common knowledge. Leadership is about more than just one person. There is little to no description of facts or scenarios to back up the leadership description.

    b. Emotions are calm, there is considerable detail that allows for a better picture of the scenarios. There was no indecisiveness and the overall character in each scenario appears to be that of "take charge".

    c. Specifically in this scenario the one difference that is easily noticeable is option number 4 in the strong category. It appears that should be a weak point.

Summary table

Strong – commonalities	Weak – commonalities	Differences
• coherent, specific, well organized	• brief, vague; the "strong" descriptions are well constructed	• "weak" descriptions are very brief and don't provide specific examples
• people **taking charge during very stressful situations**; **able to rise up and lead others when no one else can**	• more everyday leadership roles; do **not** involve **much stress, risk or great sacrifice;** seem like **everyday situations**	• **strong descriptions describe very challenging situations** and situations that potentially require great sacrifice and for a person to show great courage; **weak descriptions describe leadership roles that are safe** and do not involve much risk or a great sacrifice
• **going out of your way, above and beyond**, to do the right thing	• these are **basic things, some just come with the territory,** ex of the leader leading every day, **that's his job; nothing extraordinary**	• **weak is not extraordinary, strong is extraordinary,** strong clearly is making an effort while weak is not
• **taking responsibility** for something	• **not having the initiative**	• using **strong leaders** to **determine what is important**
• **strong and decisive actions**	• **less directed goals**	
• **in charge of a specific/significant (possibly life changing) event and they put forth effort to guide people**	• **while being in charge, the event is vague, and not that significant**	• the **strong leadership** examples are where one makes a physical effort to lead/**guide people through a significant**

		event, where the **weak examples** are not specific; they're **more like** everyday occurrences
• **taking control**	• **no real details**	• **strong was** doing good for others
• all give specific details as to why they were examples of leadership; **all admirable**	• **they don't go into detail; none** of these examples **are admirable;** more examples of **being in charge than being a true leader**	• **strong descriptions all involve being selfless and doing things for others, while the weak descriptions are not selfless at all** (although they aren't selfish either) but they come across as more bragging than being a leader
• there was a **meaningful way** in which leadership was displayed	• **examples are insignificant**	• **strong were** exemplary whilst **weak** leaders **were less than idealistic**
• **responsibility**	• **nonrelevance**	• **level of real responsibility**
• they are very descriptive, actually go into detail of what they did	• not enough information	• the 4 strong ones tell more in detail about a situation as to the weak ones are just short answers
• **all have an** element of adversity or opposition **that the leader is facing**	• **nothing particularly out of the ordinary or challenging about the situations described**	• **strong leaders were in situations where there was** some challenge that was not part of everyday life for most people**; there were often decisions to be made; weak leaders were involved with more everyday scenarios**
• each person was **working toward the greater good** where they **did not benefit personally**	• they are **all vague descriptions**	• **weak** descriptions **are all about the person themselves** getting to lead a group; **strong** are the opposite, **about leading a group not for personal gain, but for the better of the whole**
• **very detailed**,	• very brief, **not much**	• **level of detail** between

demonstrate true leadership qualities **not just examples of people 'in charge';** very descriptive	**detail**, not too descriptive, very general	the descriptions is definitely **different**; **strong** descriptions seem to, in at least some way, **have more meaning**
• **very detailed, large responsibilities**	• all are a bit **vague**	
• **descriptions included actions that were taken and seemed to be more about** how they led **people as opposed to just saying they were a leader**	• **self-centered and more about telling someone about their actions than the actual actions themselves**	• **weak leadership** descriptions sound like **someone is trying to prove themselves to other people by their words; strong leadership describes actions** these leaders took**;** **what needed to be done**
• strong descriptions went into **great detail** about the leadership skills and the **leaderships had more importance**	• description of leadership **wasn't very specific, nor as important** as the strong descriptions.	• not much description in the weak leadership positions, while there were several details in the strong; **strong descriptions appeared to have a lot more meaningful ways of showing leadership also**
• **all involve praising other people; not so self-centered; very descriptive; all doing important things; all doing things to help other people**	• **short descriptions; all seem rather "self-centered"; a lot of use of the word "I"; not very specific; all trivial, non-important things**	• **weak ones all had it foisted upon them; appointed, they did not volunteer and their actions only really benefited themselves; strong ones all volunteered and all their actions were to the benefit of other people**
• these required actual events that tested ones leadership in leading people or **helping save or change a life**	• **small scale issues and none have drastic life changes** or lives being in danger at all	• **scale of leadership in the fact that stronger leadership has higher stakes and calls to action more involvement and shows actual events of being tested in a life altering moment**
• **go into more detail and**	• **they state that a certain**	• **weak ones were just**

explain why a certain person was a leader and how they showed their leadership	person is in charge, but nothing else; no description or explanation to why they earned that position	stating they were leaders while strong ones explained why they were leaders
• a lot of descriptive details	• lack details	• weak descriptions lack descriptive details and the strong descriptions say specifically what the person did to show leadership
• very descriptive situations; all scenarios showed calmness and fortitude	• very simple and generic examples; no descriptive examples provided	• more concrete examples in the strong descriptions
• all show examples of leadership	• talking about themselves; assigned to be person in charge but never actually giving an example of leading	• strong descriptions show actual examples of leadership
• go into detail about all they did, providing steps or details	• all seem rather vague, and they also all seem kind of passive	• "weak" descriptions all display a sense of passiveness, which seems out of place due to the subject being leadership; "strong" descriptions all include steps or details, detailing what exactly the person in the leadership role did and how they made a difference
• explains the specific hows of leadership, what the person did to concretely define them as a leader	• leadership in name, appeal purely to the position without explaining what actions were taken to lead	• weak descriptions just name positions you have been given, strong descriptions name actions you have taken
• each of these expands upon what was done as a leader and why it was done	• none are very descriptive of what they actually did in their lead roles; it's fine to say "I was in charge" but one needs to expand upon that	• description of what was done as a leader or why it was done
• strong evidence for these people acting as leaders; back their arguments up with data	• don't list anything specific; they think they were in charge but have no evidence for it	• weak descriptions are very brief and lacking in detail; some of the leadership seems very

		unimportant; all about how these individuals are leaders; strong descriptions are longer and detailed and all about the greater good
• **gave examples of why they had leadership**	• **no examples of why they had leadership**	• **weak descriptions did not show why** they had leadership and the **strong descriptions showed why** they had leadership skills
• they actually led	• **thought they were in charge but didn't do anything**	• weak ones didn't actually lead while the strong ones did
• **detailed, affect a lot of people, long term effects**	• **generic descriptions, smaller projects with short term effects.**	• **detail, number of people affected by their leadership, how lasting the impact is**
• self-reliant and couragement	• leadership and diligence	• differs in several things but they both had the same outcome; being strong and observant to the things has a major role
• **emotions are calm, there is considerable detail that allows for a better picture of the scenarios; no indecisiveness and the overall character in each scenario appears to be that of "take charge"**	• **there is no "I " in team and that is what each of these sentences have; pretty common knowledge; leadership is about more than just one person; there is little to no description of facts or scenarios to back up the leadership description**	