Constructive-Experiential Leadership Model: Exploring the Minds and Behaviours of Transformational Leaders

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Bachelor of Arts (Psychology)

This thesis is presented to the Murdoch University School of Psychology and Exercise Science in partial fulfilment of the requirements for the Bachelor of Arts (Honours) degree of Psychology 2016.
Statement of Authentication

I declare that this thesis is my own account of my research and contains as its main content work that has not been previously submitted for a degree at any tertiary educational institution.

Jessie Stroud
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List of Abbreviations

CET Cognitive-Experiential Theory
Rational Analytical-Rational System
Experiential Intuitive-Experiential System
FRLT Full-Range Leadership Theory
CELM Cognitive-Experiential Leadership Model
CTI Constructive Thinking Inventory
REIm Rational Experiential Inventory (Multimodal)
MLQ (5X) Multifactor Leadership Questionnaire

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**Author Note**

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Abstract

This thesis aimed to determine the nature of the relationships between positive components of the Constructive-Experiential Leadership Model (CELM): Top-level Rational thinking and the constructive components of the experiential system, middle-level transformational leadership and third-level proactive influencing tactics employed by transformational leaders in an organisational setting. Examination of self-report leadership ratings in relation to third-party ratings, found leaders and worker ratings only correlate in desirable scales of leadership, but not scales of contingent or non-leadership. Examination of the relationships between CELM informational processing systems and transformational leadership, found partial support for the self-reported correlations by third-party reports. Finally, examination of the relationship between transformational leadership and influencing tactics, found Worker-rated data convincingly supported transformational leaders’ use of proactive influencing tactics. Evidence and suggestions for the CELM is discussed, limitations and considerations are addressed and recommendations for future research are presented. Overall, these findings support the positive CELM components and relationships between them.
Constructive-Experiential Leadership Model: Exploring the Minds and Behaviours of Transformational Leaders

Leadership is a fundamental human phenomenon which spans societies, cultures, nations and generations. There are various philosophical and academic pursuits with the aim of defining and modelling leadership, but there is no single theory that unifies the disciplines on such a broad construct (Stippler, Moore, Rosenthal, Doerffer, & Dorffer, 2001). So, what is leadership and why is it important to research?

First, the distinction must be made between leadership and leaders. Leadership is the timeless pursuit of bringing about change through the recruitment and cultivation of action from others. It is a complex interplay of internal and external processes by which a leader interacts with followers in a manner that elicits and encourages action appropriate behaviours (Bass & Riggio, 2006). It is also the communication of vision-oriented inspiration and goal integrity that maintains commitment from followers (Bass, 2009). The leader, then, is the individual exercising leadership with followers to affect a desired change Epstein, 2014).

Second, the expanse of leadership literature and its continued growth is a testament to its perceived importance in society (Arnold & Loughlin, 2013). Leadership is a powerful tool to wield. In the right hands, great leadership can translate grand visions into prosperous reality. In the wrong hands, great leadership can also be a mechanism for deliberate and systematic destruction. Implicitly, one can recognise a great leader (e.g., Nelson Mandela, Mahatma Gandhi, and even Adolf Hitler), but it may be more difficult to understand the
Research Overview

This thesis aims to examine theorised relationships between leaders’ internal processing systems, leadership styles and behavioural mechanisms employed by leaders in organisational settings. The first section will review the existing leadership literature and trace the evolution of leadership theories to modern day models such as the Full-Range Leadership Theory (FRLT; Antonakis, Avolio, & Sivasubramaniam, 2003). The next section will expand upon the idea of ‘effective leadership,’ focusing on a popular leadership style known as transformational leadership. It will discuss leadership behaviours and influences and their effect on organisational outcomes. The third section will cross over to the internal processes of leadership. It will detail the dual model of informational processing known as Cognitive Experiential Theory (CET; Epstein, 2014). Individual preferences for use of their rational compared to their experiential system, constructive thinking (including emotional and behavioural coping) will be discussed and linked back to leadership effectiveness. The fourth section will discuss a set of techniques used by leaders to influence followers to act. Finally, each of the internal and external leadership processes discussed will be placed within the framework of an integrated theory of leadership; the Cognitive-Experiential Leadership Model (CELM; Cerni, Curtis & Guy, 2014). Following this, a section of the proposed elements and theorised relationships of the CELM model will be examined. Specifically, relationships between positive CELM components: Top-level Rational thinking and the constructive components of the experiential system, middle-level transformational leadership
and third-level proactive influencing tactics employed by transformational leaders in an organisational setting.

**Leadership Theories**

Going back to the origins of leadership research, there was a tendency to focus on individual leaders rather than the nature of their relationship with their followers. These person-centred approaches assumed that leadership was driven by leaders onto their followers, without consideration for the interactive nature of human relationships (Stippler et al., 2001). An example of this is trait theory, which attempts to identify those abilities and attributed characteristic of great leaders (Bass, 2009). While traits like intelligence tend to be shared by leaders, the trait model doesn’t account for situational factors, such as the interaction between a leader’s traits, their experience, or those of their followers (Dinh, Lord, Gardner, Meuser, Liden, & Hu, 2014; Stippler et al., 2001).

Alternative theories moved the focus from developing an archetypical leader trait set, to developing models of leader behaviours and collaborations with others. It is suggested that there are two schools of thought when considering the role of others in the definition of leadership: those that see leadership as “the ability to get followers” and the second which views leadership as “the ability to elicit extraordinary performance from ordinary people” (Tracy, 2014, p. 2-3). The first approach focuses on recruitment and retention of service and the second on the extraction of excellence. These are the fundamental elements of two leadership styles coined by Burns (1978) to describe the distinction between styles of political leaders: transactional leadership and transformational leadership respectively (Bass & Riggio, 2006). Transactional leaders employ followers based on an agreement of exchange of
reward for action (Antonakis et al., 2003). To maintain goal trajectory, transactional leaders monitor progress and control actions (Cerni, Curtis & Colmar, 2008). Typically, this involves an offer of financial compensation for productivity and/or the retraction of and/or denial of rewards for a lack in productivity (Bass & Riggio, 2006). While transformational leadership has many applications, it doesn’t address how leadership can exist in non-exchange situations (i.e., volunteer work or social media campaigns such as flash mobs). When no tangible reward is offered, a leader must draw upon internal resources to inspire and stimulate action (Bass & Riggio, 2006). This proactive approach forms the basis of the second leadership style known as transformational leadership. It is characterised by the ability to articulate a vision, raise a collective interest, motivate others to want to help achieve the vision and maintaining group commitment until the vision is achieved or, often, surpassed (Antonakis et al., 2003; Bass, 1985). Bass and Riggio (2006) state that transformational leaders differ from transactional leaders, in that while they are goal oriented, they respond to the needs of individual followers by helping them align their personal goals with that of the group and empowering them to collaborate in achieving extraordinary outcomes. Since Burns’ distinction in 1978, transformational-transactional leadership theories have undergone several developments (Bass, 1985; Bass 1997) and academic reviews (Bono & Judge, 2004; Eagly, Johannesen-Schmidt, & van Engen, 2003; Harms, & Credé, 2010; Judge & Piccolo, 2004).

**Full-Range Leadership Theory (FRLT)**

The Full-Range Leadership Theory (FRLT; Antonakis et al., 2003), presents three main leadership typologies, transactional, transformational, along
with a third non-leadership style known as laissez-faire leadership, which are broken down into nine first-order factors. Five factors make up transformational leadership: (1) attributed charisma, referring to the social presence of the leader (i.e., viewed as confident and acting with integrity); (2) idealised influence-behaviour, referring to the vision-, value- and belief-oriented actions of the leader; (3) inspirational motivation, referring to the process by which leaders communicate, inspire, and motivate; (4) intellectual stimulation, referring to the approach on logical appeal and challenging the follower to overcome personal barriers; and (5) individualized consideration, referring to the identification and catering to individual follower needs. Three factors contribute to transactional leadership: (6) contingent reward, referring to role clarification and reward expectations; (7) management-by-exception (active), referring to corrective actions and ensuring criteria are met; and (8) management by-exception (passive), referring to intervening at non-conformance. And the final (9) laissez-faire leadership, which is the failure to demonstrate any leadership skills or act as required (Cerni, Curtis & Comar, 2014).

Transformational leadership depicts leaders which are inspiring and motivational, leaders who are defined by their focus on achieving and surpassing an overall vision, and leaders who are invested in the personal development of their followers (Bass, 1997). Within and outside the FRLT framework, it seems appropriate for transformational leadership to receive the academic interest it has. A meta-analysis of the transformational-transactional literature revealed that transformational leadership demonstrates high validity, it consistently outperforms transactional leadership and its presence in the work place denotes a number of positive organisational outcomes (Judge & Piccolo, 2004). It has
established itself as a benchmark within the leadership literature due to the high quality of its research (Nielsen, Randall, Yarker, & Brenner, 2008). It has been applied across various settings (Pruijn & Boucher, 1994) and has been demonstrated as a strong predictor of leader performance (Bass & Avolio, 1997; Tonelli, 2008). The effectiveness of transformational leadership in an organisational setting will be discussed next.

**Effective Organisational Leadership**

The tactics employed by organisational leaders have a real and established effect on workers. Encouraging the adaptation of transformational leadership techniques have produced positive organisational outcomes in performance, behaviour and attitude, at individual, group and organisational levels (Arnold & Loughlin, 2013; Cerni, Curtis & Colmar, 2014). Research also suggests that different aspects of transformational leadership produce different organisational outcomes (Arnold & Loughlin, 2013).

Transformational leaders were found to increase workplace optimism by empowering workers and reducing worker frustration (McColl-Kennedy & Anderson, 2002). This resulted in an indirect improvement in worker satisfaction and productivity (McColl-Kennedy & Anderson, 2002). Transformational leadership has been linked to other forms of well-being, including affective well-being (Nielsen & Munir, 2009), psychological well-being (Nielsen et al, 2008), and well-being related to occupational outcomes (van Dierendonck, Haynes, Borrill & Stride, 2004). Transformational leadership positively predicts rational decision making among business managers (Riaz & Khalili, 2014).

A school based-coaching program resulted in staff members recognising the increase in individualised consideration techniques used by their principal: “I
would like to add that [Principal 1] has been a bit friendlier recently and is thanking staff more for the work they do which is appreciated” (Cerni, Curtis & Colmar, 2010a p. 60). Effective communication of the strategic plan to workers, increases their confidence and sense of role security (Nielsen & Munir, 2009).

Transformational leadership is an effective leadership strategy when considering leadership as in an organisational setting. It does so through an intricate balance of innovative ideology, situational and emotional awareness, strategic thinking, and appropriate behaviour-eliciting and -encouraging actions. Its fundamental elements are adaptable across organisations, industries and continents. Several coaching programs have been shown to increase leaders use of transformational leadership techniques (Cerni et al., 2010a; Cerni, Curtis & Colmar, 2010b). These programs were aimed at developing the cognitive skills in leaders. The incidental increase in transformational leadership provides evidence for the causal relationship between aspects of leaders thinking and their leadership style (Cerni et al., 2008). To change the way one leads, one must change how one thinks. The next section presents an established theory on how individuals think. It will focus on the internal systems responsible for processing information; the selection and application of these systems in an environment; and their relevance to leadership literature.

**Transformational leadership and informational processing**

The ability to articulate and communicate one’s idea to one or more other people intuitively requires a number of things: logic to make sense of the vision and argue its merit, intelligence to put the vision into understandable words and suitable context, and reasonable optimism in the ability of others to help achieve the vision; just to name a few. The ability to inspire vision and motivate others
to help achieve a common goal demands a number more: creative innovation to develop an idea or a vision to achieve, confidence in one’s ability and conviction in the belief that it is possible; emotional intelligence to understand the needs of the individual followers and pull out from them the passion to commit to a shared vision. Fortunately, a theory on information processing – which has been linked to transformational leadership (Cerni et al., 2008) – addresses these dichotomous needs: The Cognitive-Experiential Theory (CET (Epstein, 2014).

Cognitive-Experiential Theory (CET)

The CET, like the FRLT, has had several revisions since it was first presented as a “global theory of personality” (Cerni et al., 2014; Epstein, 1973; Norris & Epstein 2011). Likened to other dual processing system theories, such as the generic two-system theory of reasoning (Evans, 2008), the CET presents evidence for two distinct cognitive systems that are independent of and interact with one another to process information: the rational system and the experiential system (Epstein, Pacini, Denes-Raj, & Heier, 1996; Epstein, 2014).

The rational system, known as the inferential or verbal processing system, is “uniquely human because it requires the use to grammatical language” (Epstein, 2014, p.4). It is a conscious process and is responsible for logical and abstract reasoning, rational evaluation of evidence, and even how individuals construct their own realities (Epstein, 2014). The rational system is associated with academic achievement and other measures of good adjustment (e.g., self-esteem, conscientiousness and action orientation), and negatively associated with measures of poor adjustment (e.g., anxiety, depression, neuroticism; Epstein et al., 1996; Norris & Epstein, 2011). The experiential system is an emotional driver that responds to environmental stimuli in a way that is rapid,
non-verbal and typically outside of consciousness (Epstein, 2014). Operating automatically, it does not demand a great amount of cognitive resources, but it is key to understanding social and emotional situations and behaviours (Cerni et al., 2014). As its name suggests, the experiential system is shaped and constructed through experience and conception, and it is responsible for organising daily perception and behaviour (Epstein & Meier, 1989).

The amount of influence of either system has on overall information processing, depends on the context of the situation (Cerni et al., 2008). Complex environments, such as the workplace, may produce conflicting demands from both systems. Handling a conflict resolution between colleagues may involve a logical evaluation of each argument, an understanding their failed conflict resolution, and the presentation of a solution agreeable to both parties. Neither one system alone would be appropriate, but both systems may compete for resources to resolve the issue. It is suggested that the “constructive interaction between the two systems can potentially be a source of intuitive wisdom and creativity” (Cerni et al., 2008, p. 61). (Epstein, 2014). Their parallel operation and bidirectional relationship means that the more efficient experiential system typically initiates their interaction, but the purposeful combination of their unique strengths is a sign of an effective thinking system (Epstein, 2014). The speed at which the experiential system acts, and its freedom from language limitations, means it is more suited to solving problems which require rapid abstract thinking (Cerni et al., 2008).

Facets of each system are key to transformational leadership techniques such as intellectual stimulation. Intellectual stimulation requires the rational system’s logical reasoning to challenge organisational norms, urge innovation
and “thinking outside the box;” and it requires the experiential system’s
behavioural and emotional understanding to effectively appeal to individual
followers’ values and beliefs (Bono & Judge, 2004). The interactions between
the CET systems and transformational leadership are further discussed.

**CET and Transformational Leadership**

Increasing a leaders’ awareness of their own thought processes, increases
their ability to understand their own behaviour, understand the behaviour of their
followers, and appropriately respond to situational changes (Stippler et al.,
2011). Several coaching programs have been developed to increase CET
systems, through exercises in self-reflection, effective thinking and feedback
loops from staff) (Cerni et al., 2010a; Cerni et al., 2010b). One coaching
program led to significant increase in transformational leadership as reported by
staff members when comparing pre- to post-program Cerni et al., 2010a). The
increase in scores for idealised influence indicates increased trust levels and
commitment to emulate the positive changes. The increased scores for
individualised consideration indicates a perceived emphasis on treating staff
members with respect.

Cerni and colleagues (2008), examined the relationships between the
FRLT and CET in high school principals. They found that 21% of
transformational leadership could be predicted by the rational system, but only
weak a correlation with the experiential system as measured by the Rational-
Experiential Inventory (REI; Pacini & Epstein. 1999). Applying an alternative
approach to the experiential system, using the constructive components of the
Constructive Thinking Inventory (CTI; Epstein, 2001), they found significant
correlations and evidence for joint contribution of the rational and constructive thinking subscales.

**Constructive Thinking**

Epstein and Meier (1989) developed the CTI to measure the automated constructive and deconstructive processing of perception, behaviour, and the way individuals construct their views on their environments and themselves (Cerni et al., 2008). Constructive thinking – or experiential intelligence as referred to by its developers (Epstein & Meier, 1989) – is the adaptive process of solving daily problems while minimising stress (Cerni et al., 2014). Leader effectiveness and wellbeing have been linked to constructive and flexible thinking (Cerni et al., 2008). The CTI has three constructive thinking scales: global constructive thinking – the composite measure of adaptive use of the experiential system; behavioural coping – the tendency to act in response to issues; and emotional coping – the control over one’s internal world of emotions (Epstein & Meier, 1989). Each of the constructive thinking scales were significantly correlated with transformational leadership, with behavioural coping being the most convincing (Cerni et al., 2008).

**Experiential expansions**

Recently, the established measure of the CET systems, the Rational-Experiential Inventory (REI; Pacini & Epstein, 1999; as used by Cerni et al., 2008), was reviewed and revised to the Rational-Experiential Multimodal Inventory (REIm), which include three new factors of the experiential system: intuition associated with personal growth, imagination associated with creativity and emotionality associated with empathy (Norris & Epstein, 2011). All three attributes are essential to adapting to one’s automatic environmental learning.
system. Emotionality is the most fundamental to experiential thinking: “without emotion there would be no experiential system” (Norris & Epstein, 2011, p. 1073). Emotional comprehension is important for leaders. Transformational leaders tend to be emotionally intelligent (Perko, Kinnunen, Tolvanen & Feldt, 2016). Emotional intelligence precedes the ability to regulate one’s emotions, understanding emotions in others, connecting with others on an emotional level, and eliciting emotional responses from others – all of which are techniques employed by transformational leaders (Cerni et al., 2014).

Imagination is the key to innovation. It is argued that to direct innovation, leaders need to think creatively (Mumford, Connelly & Gaddis, 2003). Little research has directly connected leadership with thinking imaginatively (Curtis & Cerni, 2015). Though, through a series of experimental role-play exercises and investigative case-studies, Mumford and colleagues (2003) found that leaders employ a unique way of expressing creative thinking. Leaders must overcome an array of new problems when promoting innovation and a leader’s ability to inspire suggests capable imaginative thinning (Curtis & Cerni, 2015). Transformational leaders must be able to imagine a new future to drive change, or imagine a creative solution when a solution isn’t immediately obvious, or imagine a cooperative collective of individuals capable of bringing vision to reality under a unified agenda (Curtis & Cerni, 2015). These techniques are typical of transformational leadership.

In summary, the CET systems and their subsystems are important pieces of the multifaceted leadership puzzle. Without rational thinking, decision making, logical reasoning and articulating and executing plans become impossible. Without emotional intelligence, leaders would not be able to connect with
followers or understand and cater to their individual needs. The next section will delve into the techniques leaders employ to influence and elicit action from followers.

**Influencing Tactics**

An individual may have mastered each of the elements discussed: constructive thinking, imagination and innovative problem solving, emotional understanding, and the ability communicate with integrity and honesty; however, even with the combination of these positive attributes- they do not make a leader. It makes for great potential for leadership. Referring to the two general definitions of leadership presented at the beginning of this thesis – “the ability to get followers” or “the ability to elicit extraordinary performance from ordinary people” (Tracy, 2014, p. 2-3) – leadership isn’t an individual sport. It involves followers. What makes a leader is their ability to be able to motive or influence others to help them to achieve it. How one goes about achieving this – or their influencing tactics – is key to their success (Yukl, Seirfert & Chavez (2008).

Transformational leaders make use of tactics such as intellectual stimulation to elicit behaviours in the workplace through (Bass, 1985). They encourage worker self-efficacy by setting high expectations, paying attention to individual worker needs and aiding them in their personal growth (Nielsen & Munir, 2009). An established measure of influencing tactics is the Influence Behaviour Questionnaire (IBQ; Yukl et al., 2008). The IBQ measures how often an agent, such as a leader, employs a set of tactics to influence action through: rational persuasion, consultation, inspirational appeals, collaboration, apprising, ingratiation, personal appeals, exchange, legitimating tactics, pressure, and/or coalition tactics.
Yukl and colleagues (2008) found that the most effective managers reliably selected four ‘core’ influencing tactics more frequently than less effective managers: (1) rational persuasion – presenting a logical argument for action; (2) consultation – attaining buy in by requesting suggestions or assistance in problem solving; (3) inspirational appeals – appeals to personal values or emotions; and (4) collaboration – offering necessary assistance or resources. Of these, two align with transformational leadership: rational persuasion and inspirational appeals (Cerni et al., 2014). This link is supported by Charbonneau (2004) who found that rational persuasion and inspirational appeals were significant predictors of transformational leadership factors. Further research is needed to confirm the influencing tactics employed by transformational leaders and whether the direction of the relationship is important.

In summary, the aspects of the underlying mechanisms and behavioural outputs of effective leadership have been discussed. Transformational leadership has been presented as the most effective approach to organisational leadership. The appropriate selection and use of separate, interactive informational processing systems within the framework of effective organisational leadership have been offered. And last, the proactive influencing tactics employed by effective leaders. The next, and last, section of this introduction will present an integrated leadership theory which includes these elements as part of an overarching leadership model.

**Integrated Leadership Model**

A unified theory of leadership must incorporate all internal and external factors that contribute to and occur as a result of exercising leadership. Despite the extensive literature on transformational leadership, none have sufficiently
done so (Stippler et al., 2001). Also, more effort need to be put into theory consolidation and examination of the interaction between individual components (Arnold & Loughlin, 2013). Recently, such a model was presented by Cerni and colleagues (2014): The Cognitive-Experiential Leadership Model (CELM).

The full integrated model is presented in Figure 1. At the top of the model sits the rational system and constructive components of the experiential system (e.g., behavioural coping). The downwards direction of the arrows indicate the causal influence between informational processing and the selection and utilisation of leadership style. The left path indicates non-utilisation and a lack of leadership skills (i.e., laissez-faire), and the right indicates the constructive use of informational processing systems leading to effective leadership skills (i.e., transformational leadership). Transactional leadership, being based upon exchange and lacking any empirical links to informational processing systems is outside this process and is not investigated further in this thesis.

Transformational leadership correlates with proactive influencing tactics and conflict management techniques to improve organisational outcomes, whereas non-leadership and conflict avoidance results in negative organisational outcomes.
This thesis intends to determine the nature of the relationships between the positive components of CELM: Rational thinking and the constructive components of the experiential system, transformational leadership and the proactive influencing tactics employed by transformational leaders in an organisational setting. First, it will examine whether self-report leadership ratings are supported by and correlate with third-party ratings. Then, it will examine the relationships between CELM informational processing systems and
transformational leadership. Finally, it will examine the relationships between transformational leadership and influencing tactics.

**Study 1: Leader vs Worker Leadership Ratings**

Study 1 intends to confirm whether self-report measures of leadership are an accurate representation of an individual’s leadership. In organisational research, self-report surveys are a common, convenient method for obtaining data. This is appropriate when obtaining data about internal processes or individual preferences (i.e., tendencies for thinking). However, for multifaceted constructs such as leadership, self-report measures are not the only, or arguably the best, option (Conway & Lance, 2010). Organisational leaders may hold opinions of their leadership disproportionate to their skills or the observations of others meaning that self-report measures would be inaccurate for any other application than to measure leaders’ opinions. Also, solely relying on self-report data leaves room for the possibility that the relationships observed between variables are attributable to their measurement as opposed to reflecting genuine correlations (i.e., common methods bias; Conway & Lance, 2010). Conway and Lance (2010) recommend that research include supporting measurements in addition to self-report data to substantiate findings. Additionally, Research linking the rational and constructive elements of the experiential system with transformational leadership, conducted prior to these recommendations relied on self-report data (Cerni et al., 2008). So, in establishing the accuracy of self-report measurement would provide support for the validity of their findings.

In this study, leaders self-report data will be compared to and correlated with third-party reports from direct workers on the established measure of
FRLT: The Multi-Factor Leadership Questionnaire (MLQ; Bass & Avolio, 1997).

It is expected that the Leader ratings on the desirable transformational leadership scales of the MLQ will tend to be higher than the Worker ratings, but they will significant correlate. Poor or contingent leadership, on the other hand, does not necessarily recognise itself. Significant differences between Leader and Worker ratings on the transactional and laissez-faire leadership scales are not expected. Nor are the scores expected to be correlated.

**Study 2: Information Processing and Transformational Leadership**

Study 2 intends to determine whether the significant relationships between transformational leadership and the rational system and the constructive elements of the experiential system as produced by Cerni et al. (2008) can be reproduced and supported with third party evidence. It will re-examine the correlations between leaders self-reported leadership styles and their use of the CELM information processing system. More importantly, it will examine these relationships as rated by workers.

Transformational leadership has been extensively linked to the rational system, however, the evidence for its relationship with the experiential system has been less convincing. Recently, Norris & Epstein (2011) reviewed the established measure of the two CET systems the Rational-Experiential Inventory (REI; Epstein et al., 1996), and found that the experiential system could be further deconstructed into three distinct experimental factors: Emotionality, Imagination and Intuition. The CELM proposes that emotionality and imagination are causally linked with transformational leadership in the same way that the rational system is (Cernit et al., 2014). Transformational leadership
is an empathetic process. The need for transformational leaders to employ emotionality, (i.e., for emotion management, emotional connection or eliciting emotional responses in others) has been addressed. Whether transformational leaders need imagination needs further investigation (Curtis & Cerni, 2015), this study intends to fill this gap in the research.

This study will investigate the relationships between these new experiential factors and transformational leadership. REIm scales for rational thinking, emotionality, imagination, and intuition will have significant, positive correlations with MLQ transformational leadership scores as rated by Leaders and Workers. Following the same procedure, the relationships between the constructive thinking scales – global constructive thinking, behavioural coping and emotional coping – will be examined. It is expected that each factor will be uniquely positively associated with transformational leadership and that their combined contribution will serve as significant predictors of transformational leadership.

**Study 3: Transformational Leadership and Influencing Tactics**

Finally, this study will examine transformational leaders use of influencing tactics to prompt the action of others in their workplace. The CELM proposes that rational persuasion and inspiration appeals are typical of transformational leaders, which is supported (Charbonneau, 2004). And that the nature of this relationship (one-way or top-down or interactive) is not important – but rather that it exists.

It is expected then that the both core influencing tactics will correlate with Leaders transformational scores. Exploratory regression analysis will be conducted to determine whether the nature of the relationship is predictive.
Method

Data Collection

Participants were recruited in pairs; one in a leader, supervisor, or management role and the other in a subordinate or worker role. To clearly differentiate the construct ‘leader’ from the participants, reference to participants will be as Leader(s) and Worker(s). The working relationship between Leader and Worker needed to be direct and unequal, current at the time of administration, bound by paid or voluntary employment and established for at least six months. These restrictions were prescribed to ensure Workers could confidently and accurately answer questions concerning their paired Leader.

Informal contact was made with either Worker or Leader, who identified a suitable colleague to be paired with for the study. Contact information was collected and concurrent emails containing role specific information were sent separately to each participant. The emails contained a brief research introduction followed by the link to complete the survey online or the option to request a hard copy of the survey if preferred. An introductory information letter outlined the purpose, content, consent confirmation and participant instructions for completing the survey (see Appendix B). This was followed by a demographic questionnaire and the appropriate battery of tests. Leaders completed the Multifactor Leadership Questionnaire (MLQ-L) Leader Form (5xShort), Constructive Thinking Inventory (CTI), and the Rational/Experiential Multimodal Inventory (REIm). Workers completed the Multifactor Leadership Questionnaire (MLQ-R) Rater Form (5xShort), and the Extended Influence Behaviour Questionnaire (IBQ).
Excluding participants under the age of 18 years, 244 Leaders and 238 Workers provided survey responses. After removing non-paired participants, 190 Leader-Worker pairs were analysed (78.84% of total valid responses).

**Participants**

**Leaders**

Of the 190 paired Leaders (78% of valid Leader responses), 53% were female, 46% were male, and 1% undisclosed. They had a mean age of 43.54 years (female \(M = 43.63\), and male \(M = 43.43\) years), ranging from 22 to 65 years. Leaders’ experience in their current position ranged from less than a year to 31 years, with a mean of 5 years and 3 months. They were employed in a variety of industries; two-thirds identified either business, education, engineering, general management or healthcare, with a quarter falling under the category of other.

**Workers**

Of the 190 paired Workers (80% of valid Worker responses), 43% were female, 56% were male, and 1% undisclosed. They had a mean age of 35.53 years (female \(M = 35.26\), and male \(M = 35.74\) years) and an age range from 18 to 65 years. Half of the Workers had less than the median 2 years’ experience in their current position, however their tenures ranged from less than a year to 23 years. As with the Leaders, nearly a quarter identified other as their industry, followed by business, engineering, healthcare, administration, and education (less than 1% identified as a general management).

**Measures**

**Multifactor Leadership Questionnaire Form 5x [MLQ (5x)]**
The Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1997) has established itself as a reliable and valid measure of the components of the Full Range Leadership Theory (FRLT; Antonakis et al., 2003). It has been applied across various settings (Lowe, Kroeck, & Sivasubramaniam, 1996) and has been demonstrated as a strong predictor of leader performance (Bass & Avolio, 1997, Tonelli, 2008). The latest version – the MLQ (5x) – was used in this study. It is comprised of 45 leadership statements, such as “I lead a group that is effective,” that require response on a 5-point scale from 0 = not at all, to 4 = frequently, or always. The self-report MLQ (5x) Leader form (see Appendix C) was completed by Leaders while the Workers rated the Leaders using the Rater form (see Appendix D).

The MLQ (5x) measures the three FRLT leadership approaches: transformational, transactional and laissez-faire, and provides three measures of leadership outcomes: extra effort, effectiveness and satisfaction (Antonakis et al., 2003). Additionally, the MLQ (5x) and produces eight subscales. Five factors make up transformational leadership: (1) attributed charisma, (2) idealised influence-behaviour, (3) inspirational motivation, (4) intellectual stimulation, and (5) individualized consideration. Three factors contribute to transactional leadership: (6) contingent reward, (7) management-by-exception (active), and (8) management by-exception (passive). Bass and Avolio’s (1997) recommends mean scores of 3 for transformational scales, 1-2 for transactional scales, and M = 0 for the laissez-faire scale.

The internal consistencies of the main MLQ (5x) factors and outcomes were good as rated by Leaders: transformational ($\alpha = .88$), transactional ($\alpha = .58$), laissez-faire ($\alpha = .53$), extra effort ($\alpha = .74$), effectiveness ($\alpha = .73$), and
satisfaction ($\alpha = .67$); and, Workers: transformational ($\alpha = .94$), transactional ($\alpha = .55$), laissez-faire ($\alpha = .68$), extra effort ($\alpha = .69$), effectiveness ($\alpha = .82$), and satisfaction ($\alpha = .74$). The remaining MLQ subscales are detailed in Appendix

**Rational/Experiential Multimodal Inventory (REIm)**

The REIm is a 42-item self-report measure of the Leaders’ rational and experiential systems as outlined in the CET (Epstein; 2014). It requires response on a 5-point scale from 1 = *definitely false* to 5 = *definitely true*. The rational scale includes 12-items, such as “I have a logical mind” (see Appendix F for full scale). Unlike previous versions (REI; Epstein et al., 1996), the 30-item experiential scale of the REIm is made up of three 10-item subscales: intuition, emotionality and imagination (Norris & Epstein, 2011). Each scale includes item statements such as “I like to rely on my intuition,” “my anger is often very intense,” “Art is really important to me.” The reliabilities of the two main scales, as demonstrated by Cronbach’s alpha, were good: rational ($\alpha = .87$) and experiential ($\alpha = .81$). Moderate reliabilities were observed for the experiential subscales: imagination ($\alpha = .71$), emotionality ($\alpha = .60$), intuition ($\alpha = .73$).

**Influence Behaviour Questionnaire (IBQ)**

The IBQ measures the use of proactive tactics in order to influence the behaviour of others (Yukl, et al, 2008). On a scale from 1 = *I can’t remember him/her ever using this tactic with me* to 5 = *He/she seldom uses this tactic very often with me*, Workers were asked to rate how often they have observed Leaders employing influencing tactics in order to illicit their (the Worker’s) behaviour. This study administered the extended 44-item version of the questionnaire (IBQ-G), which includes item statements such as “Describes a clear, inspiring vision of what a proposed project or change could accomplish”
and “asks for your help as a personal favour.” The IBQ-G provides valid and reliable scales of 11 distinct proactive influencing tactics: rational persuasion, consultation, inspirational appeals, collaboration, apprising, ingratiation, personal appeals, exchange, legitimating tactics, pressure and coalition tactics (Yukl, et al, 2008). Cronbach’s alpha reliability coefficients for the 4-item scales ranged from rational persuasion (α = .81) to exchange (α = .92).

**Constructive Thinking Inventory (CTI)**

The CTI (Epstein, 2001) is a 108-item self-report measure of the constructive and destructive components of the automatic experiential system (Epstein & Meier, 1989; CEST; Epstein, 1994). Leaders indicated their tendencies for thinking either constructively or destructively, by providing ratings on a 5-point scale for statements like “I take failure very hard” and “I don’t let little things bother me (see Appendix G for full scale). Higher scores indicate higher tendencies, which are desirable for the three constructive scales of interest: global constructive thinking, emotional coping, and behavioural coping. The internal consistency for behavioural coping and emotional coping, as measured by Cronbach’s alpha, were as comparable to those observed during validation (α = .78 and α = .92 respectively), however global constructive thinking was lower than expected (α = .71).

In addition to the destructive scales, the CTI includes 17 items designed to identify biased or defensive responses and inattentive response patterns (Epstein, 2001). Scores 1.5 standard deviations above the mean of the 9-item defensiveness scale and scores 1.5 standard deviations below the mean of the 8-item validity scale are recommended for removal from analysis. Additionally, an
alternative approach, is to evaluate the distribution of responses for evidence of systematic biases (Ammerman, Lynch, Donovan, Martin & Maisto, 2001).

**Preliminary Analysis**

The correlation and regression analyses required for this study assumes that its variables approximate normal distribution. This prompted an examination of the data to determine whether suspected skews were significant and as such violated this assumption. Variables were considered as significantly skewed when the significance of the skew was greater than ±3.29 (Tabachnick & Fidell, 2007). A total of 20 variables were found with significant positive and negative skews: three Leader-rated MLQ variables, ten Worker-rated MLQ variables and seven IBQ variables. Additionally, thirty Leaders met the exclusion criteria set by both the defensiveness and validity scales (Epstein, 2001), however, this only removed the marginally significant skews of two variables: effectiveness (MLQ – completed by Workers), and intuition (REIm). Given the sample size was aimed at 200 pairs of pairs, the elimination of these participants, in this respect, would reduce the sample size significantly and impact upon the multivariate analyses. Additional examination of the distributions did not reveal systematic biases – socially desirable or inattentive – participants were not removed from analysis on this basis.

Ultimately, it was deemed necessary to apply appropriate normalising transformations on the skewed variables for their use in this study’s analyses. Recommended transformations for positive skews included inverse, logarithm, or square root of the scores, and negative skews require an additional reversal process before selecting one of those available to positive skews – selection depends on the extent of the skew (Schröder, 1997). The selected variable
transformations, along with their effects on the variables, are presented in Appendix H.

It is important to note that a number of the transformations used to correct negative skews, result in the reversal the direction of the transformed variable scores (as indicated by ** in Appendix H). Thus, variables transformed by a reversing function (e.g., Worker-rated laissez-faire leadership which was transformed using the inverse function), have high scores replaced by low scores and low scores replaced by high scores. Conducting correlational analysis between an untransformed variable and a reversed transformed variable would produce a reversed correlational direction between the original variables. For simplicity, all correlations and predictive models will be reported as between the original variables (i.e., reversed correlations will be corrected to indicate the true nature of the relationship).

Results

Study 1: Leader vs Worker Leadership Ratings

To determine the accuracy of self-reported leadership ratings, this study first compared the Leaders’ MLQ scores the ratings provided by the Workers. The untransformed means and standard deviations for each of the MLQ scales are displayed in Figure 2 and paired samples t-tests were conducted to compare the Leader and Worker ratings. Leaders tended to rate themselves slightly higher on the desirable transformational leadership scale ($M = 3.10$, $SD = 0.45$), than the Workers ($M = 2.87$, $SD = 0.72$); this difference was significant $t(185) = -4.08$, $p < .001$. This pattern that continued across the transformational subscales and leadership outcome scales, with the exception of attributed charisma (Leaders $M = 2.97$, $SD = 0.64$; Workers $M = 3.03$, $SD = 0.85$), or inspirational
motivation (Leaders M = 3.20, SD = 0.04; Workers M = 3.10, SD = 0.06),
whose differences were not significant; t(185) = 0.92, p = .36 and t(185) = -1.79,
p = .08 respectively.

Transactional leadership scores as rated by Leaders (M = 1.99, SD = 0.42)
were not statistically different to Workers (M = 1.96, SD = 0.47); t(185) = -0.85,
p = .40). Neither was there a difference in scores Laissez-faire scores (Leaders M = 0.57, SD = 0.51; Workers M = 0.62, SD = 0.69; t(185) = 0.85, p = .40).

Contingent reward was rated higher by Leaders (M = 3.06, SD = 0.58) and
Workers (M = 2.88, SD = 0.79) than the other transactional scales.

![Figure 2. Multi-Factor Leadership (MLQ) scale mean ratings as self-rated by Leaders and rated by Workers](image)

Pearson Correlation Coefficients were calculated to across the MLQ variables to determine the relationship between Leader ratings and Worker ratings (see Table 1). Significant correlations were found between Leader and Worker ratings within each of the transformational scales: these ranged from small (attributed charisma $r = .22, p < .01$) to moderate (idealised influence $r = .38, p < .01$), with transformational leadership correlation falling within the
range $r = .28 (p < .01)$. Small but significant correlations were also found between Leader and Worker ratings across each of the transformational variables. The between-transformational variable correlations ranged from Leader-rated individual consideration and Worker-rated attributed charisma $r = .17 (p < .05)$ to Leader-rated inspirational motivation and Worker-rated idealised influence $r = .36 (p < .01)$.

Leader and Worker ratings for transactional leadership failed to significantly correlate. Leader and Worker ratings were significantly correlated for contingent reward $r = .17 (p < .05)$ and management by exception (active) $r = .23 (p < .01)$. Other transactional ratings were inconsistent, both internally and with MLQ variables. Laissez-faire leadership as rated by Workers were not significantly correlated with any of the Leader-rated variables, and Leader-rated laissez-faire only had a small negative relationship with Worker-rated inspirational motivation $r = -.17 (p < .05)$. 
Table 1

Correlations between self-rated Leadership ratings and Worker ratings

<table>
<thead>
<tr>
<th>MLQ Leader-Rated Variables</th>
<th>MLQ Worker-Rated Variables</th>
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<th>IC</th>
<th>IM</th>
<th>IS</th>
<th>TSL</th>
<th>CR</th>
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### MLQ Leader-Rated Variables

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Note: TFL = transformational leadership, AC = Attributed Charisma, II = Idealised Influence, IC = Individual Consideration, IM Inspirational Motivation, IS = Intellectual Stimulation, TSL = Transactional Leadership, CR = Contingent Reward, MEP = Management by Exception (Passive), LFL = Laissez-Faire Leadership, EF = Effectiveness, EE = Extra Effort, SA = Satisfaction.

*p < .05,**p < .01, ^a indicates transformed variable statistics
Study 2: Information Processing and Transformational Leadership

To determine whether the significant relationships between transformational leadership and the rational system and the constructive elements of the experiential system as produced by Cerni et al. (2008) can be reproduced and supported with third party evidence, Pearson correlations were calculated for Leader-rated and Worker-rated transformational variables (see Table 2).

REIm

Rational thinking ($M = 3.80, SD = 0.54$) revealed small to moderate relationships with each of the Leader-rated transformational leadership scales (ranging from individual consideration $r = .24, p < .01$ to transformational leadership $r = .37, p < .01$). These correlations weren’t present with the Worker-rated transformational scales.

Emotionality ($M = 3.39, SD = 0.54$) was weakly related to each of the Leader and Worker-rated transformational scales, except for intellectual stimulation. Imagination ($M = 3.33, SD = 0.57$) did significantly correlate with any of the Worker-rated scales. However, imagination was weakly related to Leader-rated idealised influence $r = .24 (p < .01)$, transformational leadership ($r = .15, p < .05$) and attributed charisma ($r = .17, p < .05$).

Intuition ($M = 3.47, SD = .45$) was weakly related to Leader-rated inspirational motivation $r = .19 (p < .01)$, attributed charisma $r = .17 (p < .05)$ and transformational leadership $r = .17 (p < .05)$. Worker-rated correlations were slightly higher and included a unique correlation with idealised influence ($r = .21, p < .01$).
Correlations between REIm Information Processing Systems and Transformational Leadership Scales – Leader and Worker rated

<table>
<thead>
<tr>
<th></th>
<th>Rational</th>
<th>Emotionality</th>
<th>Imagination</th>
<th>Intuition</th>
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<td>Intellectual Stimulation</td>
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<td>0.05</td>
<td>0.10</td>
<td>0.09</td>
</tr>
</tbody>
</table>

| **Worker-Rated**     |          |              |             |           |
| Transformational Leadership a | 0.08  | .19**        | 0.02        | .18*      |
| Attributed Charisma a | 0.02    | .18*        | 0.01        | .19**     |
| Idealised Influence a | 0.04    | .19*        | 0.09        | .21**     |
| Individual Consideration | 0.05 | .20**       | 0.01        | 0.13      |
| Inspirational Motivation a | 0.04 | .16*        | 0.02        | .16*      |
| Intellectual Stimulation | 0.11  | 0.10        | 0.07        | 0.11      |

Note. a indicates transformed variable statistics

*p < .05,**p < .01.

Overall, Worker-rated transformational correlations weren’t as convincing as the Leader-ratings – only two of the four scales produced significant correlations. To test the predictive power of the REIm scales on transformational leadership, the Leader-rated scores were used as the criterion variable in the regression analysis. Additionally, although the correlations for Leader-rated imagination and intuition were small, they were included in regression analyses.
to determine whether their contributions towards transformational leadership were significant when joint with the other variables (Cerni, Curtis and Colmar, 2008). Stepwise multiple regression confirmed neither imagination ($\beta = -.02, p = \text{ns}$) or intuition ($\beta = .12, p < \text{ns}$) were significantly predictors of transformational leadership. However, rational thinking $\beta = .42 (p < .001)$ and emotionality $\beta = .27 (p < .001)$ were strong predictors. The adjusted $R^2$ for rational thinking accounted for 14% of the variance, and its joint contribution with emotionality explained 20% of the variance in transformational leadership ($F(2, 183) = 24.56, p < .001, R^2 = .21, R^2_{\text{Adjusted}} = .20$).

**CTI**

To further explore the nature of the relationship between the experiential system and transformational leadership, Pearson correlations were computed the Constructive Thinking Inventory’s (CTI) experiential factors: global constructive thinking, behavioural coping and emotional coping.

Global constructive thinking ($M = 3.65, SD = .46$) moderately correlated with Leader-rated transformational leadership $r = .49 (p < .01)$, and weakly with Worker-rated transformational leadership $r = .16 (p < .05)$.

Emotional coping ($M = 3.52, SD = .60$) was moderately related with Leader-rated transformational leadership $r = .29 (p < .01)$, but not with Worker-rated transformational leadership.

Behavioural Coping ($M = 4.05, SD = .43$) was moderately correlated with Leader-rated transformational leadership $r = .62 (p < .01)$, weakly related to Worker-rated transformational leadership $r = .26 (p < .01)$.

Again, the Worker-rated transformational correlations weren’t as convincing as the Leader-ratings. To test the predictive power of the CTI scales
on transformational leadership, the Leader-rated scores were used as the criterion variable in the regression analysis. Stepwise multiple regression analysis found that behavioural coping was the best transformational leadership predictor ($\beta = .37$, $p < .001$), followed by emotionality ($\beta = .30$, $p < .001$), then global constructive thinking ($\beta = .26$, $p = .001$) and finally rational thinking ($\beta = .20$, $p < .01$). The adjusted $R^2$ for behavioural coping accounted for 38% of the variance. This increased to 43% with the inclusion of emotionality, 45% with subsequent inclusion of global constructive thinking and finally to 48% total combined contribution with rational thinking; $F(4, 165) = 38.49$, $p < .001$, $R^2 = .49$, $R^2_{Adjusted} = .48$.

A stepwise regression model revealed behavioural coping ($\beta = .28$, $p < .001$) and emotionality ($\beta = .17$, $p < .05$) were significant predictors, accounting for 10% of the variance in Worker-rated transformational leadership; $F(2, 167) = 9.95$, $p < .001$, $R^2 = .11$, $R^2_{Adjusted} = .10$.

**Study 3: Transformational Leadership and Influencing Tactics**

Finally, to determine whether transformational leaders are more likely to employ proactive influencing tactics, correlations were calculated between each of the IBQ tactics scales and transformational leadership scores. The IBQ untransformed descriptive statistics and their correlations with transformational leadership are reported in Table 3 (correlations involving transformed variables are indicated by *). Leader-rated transformational leadership was weakly related to inspirational appeals $r = .27$ ($p < .01$), rational persuasion $r = .18$ ($p < .05$), and apprising $r = .19$ ($p < .05$).

Worker-rated transformational leadership had significant correlations of increasing size with exchange $r = .19$ ($p < .05$), legitimacy $r = .34$ ($p < .01$),
intransit\textit{ }r = .40 (p < .01), apprising and collaboration \textit{ }r = .53 (p < .01),
consultation \textit{ }r = .60 (p < .01), rational persuasion \textit{ }r = .66 (p < .01), and rational
appeals \textit{ }r = .70 (p < .01).

Table 3

\textit{Descriptive Statistics of Core Influencing Tactics and correlations with
Transformational Leadership.}

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>Leader-rated</th>
<th>Worker-rated \textsuperscript{a}</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{Apprising}</td>
<td>2.96</td>
<td>1.24</td>
<td>.16\textsuperscript{*}</td>
<td>.53\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Coalition\textsuperscript{a}}</td>
<td>1.64</td>
<td>0.77</td>
<td>.09</td>
<td>0.04</td>
</tr>
<tr>
<td>\textit{Collaboration\textsuperscript{a}}</td>
<td>3.59</td>
<td>0.99</td>
<td>.03</td>
<td>.53\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Consultation\textsuperscript{a}}</td>
<td>3.57</td>
<td>1.01</td>
<td>.11</td>
<td>.60\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Exchange\textsuperscript{a}}</td>
<td>1.86</td>
<td>1.12</td>
<td>.00</td>
<td>.19\textsuperscript{*}</td>
</tr>
<tr>
<td>\textit{Ingratiation}</td>
<td>3.34</td>
<td>1.13</td>
<td>.11</td>
<td>.40\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Inspirational Appeals}</td>
<td>3.28</td>
<td>1.15</td>
<td>.27\textsuperscript{**}</td>
<td>.70\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Legitimacy}</td>
<td>2.91</td>
<td>1.21</td>
<td>.14</td>
<td>.34\textsuperscript{**}</td>
</tr>
<tr>
<td>\textit{Personal Appeals\textsuperscript{a}}</td>
<td>1.75</td>
<td>0.89</td>
<td>-.11</td>
<td>0.01</td>
</tr>
<tr>
<td>\textit{Pressure\textsuperscript{a}}</td>
<td>1.55</td>
<td>0.74</td>
<td>-.11</td>
<td>-0.10</td>
</tr>
<tr>
<td>\textit{Rational Persuasion\textsuperscript{a}}</td>
<td>3.86</td>
<td>0.92</td>
<td>.18\textsuperscript{*}</td>
<td>.66\textsuperscript{**}</td>
</tr>
</tbody>
</table>

\textsuperscript{N} = 190, \textit{*p} < 0.05 (2-tailed), \textit{** p} < 0.01 level (2-tailed), \textsuperscript{a} indicates transformed variable.

Though the direction of the relationship between influencing tactics and
transformational leadership is not important to the CELT model (rather the
relationships between them; Cerni, Curtis & Colmar (2014), separate Leader-
rated and Worker-rated stepwise multiple regressions were calculated with the
significantly correlated influencing tactics for each as predictors and transformational leadership as the criterion variable.

In the Leader-rated transformational model, inspirational appeals was the sole significant predictor ($\beta = .20, p < .01$), accounting for just 7% of the variance in transformational leadership ($F(1, 184) = 14.75, p < .001, R^2 = .07, R^{2_{Adjusted}} = .07$).

In the Worker-rated transformational model, four of the influencing tactics were significant predictors: inspirational appeal ($\beta = .35, p < .001$), rational persuasion ($\beta = .28, p < .001$), collaboration ($\beta = .17, p < .01$), Consultation ($\beta = .18, p < .01$). Inspirational appeal accounted for 49% of the variance in transformational leadership alone, and when combined with rational persuasion, collaboration and consultation accounted for 62% of the variance ($F(4, 185) = 77.51, p < .001, R^2 = .63, R^{2_{Adjusted}} = .62$).

**Discussion**

This thesis aimed to determine the nature of the relationships between the positive components of CELM: Rational thinking and the constructive components of the experiential system, transformational leadership and the proactive influencing tactics employed by transformational leaders in an organisational setting.

Study 1 investigated whether self-report leadership scores were related to ratings provided by workers. As expected, Leader ratings were higher on the desirable transformational leadership scales than the Worker ratings (except for inspirational motivation and attributed charisma), but only marginally. Leaders’ self-rated transformational leadership scores significantly correlated with Worker scores across each of the transformational scales. As Leaders rated a
preference for transformational leadership, Workers were likely to rate the
leaders as transformational. This indicates that self-reported ratings were
supported by the third-part reports of Workers. While transformational
leadership is seen as a socially desirable style of leadership (Avolio & Bass,
1995), Lievens, Van Geit and Coetsier (1997) found that transformational
leadership scales were largely unbiased by social desirability. This could
indicate that as leaders reflect upon their use of effective transformational
techniques, they engage in transformational reflection and provide accurate and
honest self-reports. Important aspects of transformational leadership include
integrity and being perceived as upholding higher set of values (Bass & Riggio,
2006). Therefore, transformational leaders self-report data may be considered an
accurate measure of a leader’s tendency for utilising transformational leadership
techniques.

As expected, Leader and Worker ratings on the main transactional and
laissez-faire leadership scales were neither related nor statistically different. The
lack of correlation between Leader and Worker ratings may indicate that there is
a complete lack of self-recognition for engaging in non- and exchange-based
leadership tasks. For example, an MLQ laissez-faire scale item refers to being
absent when needed (Bass & Avolio, 1997). A worker may be able to recollect
several times when the leader was not present (e.g., actively searching, making
the decision themselves), however, this might be a difficult task for a leader as it
would involve recalling a non-event. This misalignment between opinions can
occur when there is no feedback loop for leaders to receive critiques and make
appropriate self-adjustments (i.e., as encouraged under CET leadership coaching
programs; Cerni et al., 2010a). Similarly, workers would be more likely to
recollect negative feedback or receiving a non-conformance report, than the leader would dispensing it (i.e., negativity bias). Though this doesn’t discredit leader or worker ratings for the non-constrictive leadership scales, it does suggest that an alternative (or supplementary) method of measurement may be required to accurately determine whether the self- or third-party-ratings were accurate.

Interestingly, there was one exception in the transactional scales: contingent reward. Leaders and Worker ratings for contingent reward were more in line with the transformational scales and recommended transformational averages (Bass and Avolio, 1997). This may be attributable to the fact that sample was drawn from a population of currently employed Leader-Worker paired participants. In most modern organisational settings, role clarification and reward expectations are immediately and concretely established in the form of a position descriptions and/or workplace agreement. Employed individuals, would be expected to score higher on contingent reward, which measures both.

Study 2 examined the relationships between transformational leadership and the rational system and the constructive elements of the experiential system. The significant correlations between the rational system and self-report transformational leadership scales as demonstrated by Cerni et al. (2008) were successfully reproduced. Leaders’ preference for rational thinking was causally linked with their preference for exercising transformational leadership. However, this relationship was not supported by Worker ratings. Worker perceptions of transformational leadership behaviours is seemingly unrelated to Leader’s preference for thinking rationally. Rational thinking is an impersonal, logical processing system, which is largely inaccessible to anyone other than the
individual using it (Epstein et al., 1996). Although transformational leaders rely on rational thinking, their preference for doing so does not impact how their leadership is perceived by others.

Emotionality demonstrated consistent, weak associations with both Leader and Worker ratings of transformational leadership. This excluded intellectual stimulation, which aligns more closely with the rational thinking system. Emotionality had a small but significant positive impact upon self-rated transformational leadership. Emotionality is strongly associated with empathy and social popularity (Norris & Epstein, 2011), as leaders exercise transformational leadership, they have a slight tendency for empathetic behaviours. Leaders use emotional connection to achieve social standing with followers, model behaviours for followers to emulate, and effectively communicate their vision to followers – all tools essential to transformational leadership (Bass & Riggio, 2006; Stippler et al., 2001). This has been supported by associations with idealised influence, attributed charisma, respectively. Unlike rationality, emotionality is an interactive, empathetic process (Norris & Epstein, 2011). It involves developing trust, mutual commitment and understanding (Cerni et al., 2014). The supporting Worker-rated correlations indicate that emotionality is recognisable by others as an attribute of transformational leadership.

Imagination was weakly associated with Leader-rated preference for transformational leadership and the social charisma scales: attributed charisma and idealised influence. Imagination was not associated with Worker rated transformational leadership. This indicates that leaders tend to employ imaginative thinking when appealing to others on a social level and Workers
don’t associate transformational leadership with a leader’s imaginative thinking. Imagination was not found to be a predictor of transformational leadership as expected (Cerni et al., 2015). Mumford, Connelly and Gaddis (2003) linked imagination with leadership, through the redefinition of imaginative thinking. This involved re-framing imaginative thinking in terms of a leader’s propensity to facilitate creative thinking, not necessarily be responsible for it. Considering this study’s lack of support for imaginative thinking within the context of the CELM (2014), redefining tactics and further exploration may be required.

Although intuition was not included in the CELM, it painted a weaker but similar picture to emotionality: as (excluding individual consideration, which aligns with emotionality). Being strongly correlated with personal growth (Norris & Epstein, 2011), and with further support, there might be a place for intuition in a revised version of the CELM.

As expected, the self-rated transformational leadership positive associations with each of the constructive thinking variables were successfully reproduced (Cerni, et al., 2008). Leaders preference for transformational leadership was mirrored by their preference for constructive thinking. Worker ratings were significant, but weaker for global constructive thinking and behavioural coping and absent for emotional coping. This indicates that Workers perceptions of transformational leadership is loosely related the leaders’ constructive thinking and behavioural coping. Workers do not associate transformational leadership with a leader’s emotional coping.

Including each of the CELM information processing variables in a predictive model, resulted in behavioural coping, emotionality, global constructive thinking, and rational thinking each contributing significantly to
self-rated transformational leadership. These results mirror the results produced by Cerni and colleagues (2008), supporting the theory that rational and adaptive thinking are causally linked with effective leadership (Cerni et al., 2014). This aligns with findings from intervention programs aimed at improving a rational and experiential thinking, which had a supplementary positive effect on school leaders’ transformational leadership (Cerni et al., 2010a). How a leader thinks has an impact upon their preference for transformational leadership (Epstein, 2014). A Worker-rated model provided less, but still significant support for behavioural coping and emotionality, however, rational or constructive thinking were not predictive factors. Workers perceptions of transformational leadership are positively affected by a leader’s tendency to act in response to situational changes and engage in emotional behaviours. Leadership is most strongly perceived in relation to a leaders’ reactions to situational aspects. Adaptive emotional and behavioural response relates back to a leaders’ experiential thinking (Epstein, 2014). So while rational and constructive thinking were not predictors of Workers perceptions of transformational leadership, constructive thinking is intrinsically linked with each of the factors that were.

Study 3 investigated the tactics that transformational leaders employ to influence others to action. The two proactive influencing tactics proposed by the positive aspects of the CELM (Cerni et al., 2014), rational persuasion and inspirational appeals, and apprising as the third, were positively related to Leader-rated transformational leadership. The predictive model found only inspirational appeals was a significant predictor. As a leader’s use of emotional appeals increases, so does their preference for transformational leadership.
Worker-ratings of transformational leadership demonstrated more convincing associations with the set of influencing tactics. Transformational leadership was strongly correlated with both CELM tactics, in addition to the two remaining proactive influence tactics: consultation and collaboration (Yukl et al., 2008). As workers perceive leaders employing tactics such as logical argument, targeted emotional appeals, the offer of assistance or requests for aid, they are more likely to rate those leaders as transformational. All four were significant predictors of transitional leadership, with rational persuasion accounting for nearly half of the variance in transformational leadership alone.

The model suggests, as Workers observe leaders employing proactive influencing tactics, they would be expected to rate those leaders as being transformational. A leader being observed appealing to followers’ values or ideals, will be rated higher, in turn, on a scale of transformational leadership. These correlations were the strongest observed in the set of studies. Workers are highly influenced in their ratings of leadership by their observations of influence.

The observed relationships are understandable within the framework of the CELM (Cerni et al., 2014). Similar attributes are repeated across the three levels: information processing, preference for leadership style and influencing leadership behaviours. The top information processing level, influences the preference for transformational leadership techniques, which interacts with the selection and use of proactive influencing tactics. At the top level, emotionality enables a leader to develop an emotional connection with a follower, a transformational leadership technique such as idealised influence enables a leader to engage in behaviours that align a followers’ behaviours with their own,
and inspirational appeals enables the leader to develop followers interest in acting to achieve the shared goal. Similarly, to influence others using rational persuasion, a transformational leader must make use of his rational system.

Inspirational appeals would require inspirational motivation techniques, and so on. While the links between levels aren’t always as straightforward (e.g., there was only indirect support for the relationship between Worker ratings of transformational leadership and a leaders’ preference for constructive thinking). The associations between the rational and constructive thinking and transformational leadership were supported by self-report evidence. The associations between transformational leadership and leaders’ use of proactive influencing tactics were supported by third-party evidence. These findings should be regarded with certain limitations considered.

**Limitations**

A consideration here involves the measures and sources of data being analysed. The strongest relationships were observed between measures provided by either Leaders or Workers, not between the two. Leader-rated data supported the associations between their thinking preferences and leadership, where Worker-rated data provided support for the link between leadership and influencing tactics. The difference in associations may be due to the differences in insight provided by Leaders (access to internal dialogue) compared to Workers (unbiased observations of leader behaviours). Another reason, relates back to the purpose of this study – to determine whether the relationships were just a result of measurement using common method (Conway & Lance, 2010). This inconsistent associations between Leader and Worker ratings could not entirely rule out measurement bias.
During data analysis, many of the variables, particularly the MLQ scales rated by Workers, were negatively skewed. This indicates that Workers scores (including those for transformational leadership), tended towards the higher end with a small number in the tail of the lower end. This may indicate that leadership, as observed in an organisational setting, may not be normally distributed (Youngs, 2012). Organisational leaders are expected to exhibit effective leadership as part of their employment. It is conceivable that there may be a few individuals in leadership roles unsuited to the task. However, through strategic organisational training and/or performance management programs, those most individuals lacking in leadership techniques would develop the necessary skills techniques or no longer be employed.

Normalising transformations were applied to many of the variables to conduct linear analyses. The measures used in this thesis – the MLQ (5x), REIm, CTI and the IBQ have relatively interpretable scoring systems. For example, the average recommended score on the transformational scale is 3 (Bass & Avolio, 1997), which translates to a leader exercising transformational leadership “most of the time.” As exhibited in Appendix H, the mean Worker-rated score transforms from roughly average 2.87 to 1.44 after transformation. The transformed variable mean is no longer interpretable on the scoring scale.

In light of these limitations, considerations for future research are discussed below.

**Recommendations**

In consideration of the positive correlations between Leader and Worker scores on the transformational leadership scales, it is important to note that the Leaders were aware of the Workers completing similar surveys. Being in
leadership roles, for some up to 31 years, some Leaders may have been aware of the business practice of mirroring questionnaires and made self-protecting considerations before answering in a socially desirable manner. Though it would be difficult in an organisational setting, encouraging concealing the potential for comparisons between their ratings and those of their workers the fact from leaders, might provide a more accurate picture of how transformational leadership see themselves.

The results of this study indicate that Workers may be unaware of the cognitive efforts required to exercise effective leadership. If not attributable to other factors, this may indicate an important aspect for distinguishing leaders and non-leaders. Future research may want to consider comparing third-party leadership ratings by workers and associated leaders to determine whether the difference in ratings is down to non-leaders being unaware of the thought processes required for effective leadership. Other-leader ratings of leadership in the workplace should be more accurate. If their ratings resonate with the self-report ratings, this would provide the additional third-party support required for linking CELM information processing systems and transformational leadership.

Finally, given the present and past support for the relationships between the positive CELM components, organisations may benefit from incorporating the experiential factors associated with transformational leadership - emotionality and intuition – into development programs. CET programs have been incidentally successful at increasing transformational leadership in school environments (Cerni et al., 2010a), One developed to address each of the positive CELM components is likely to be successful in an organisational setting.
References


