RUNNING HEAD: MOTIVATION FOR TRANSFORMATIONAL LEADERSHIP

Motivation for Transformational Leadership in Two Organizations

By

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Table of Contents

List of Tables

List of Figures

Abstract

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Abstract: A critical assumption of the leadership development literature is that leaders want to engage in effective leadership behaviors (Gilbert & Kelloway, 2014). Drawing on self-determination theory, I address the question of what motivates leaders to engage in effective leadership behaviors as defined by transformational leadership theory. Three studies addressed the research question. First, I conducted a cross-sectional validation study using a sample of 279 Salvation Army leaders in order to refine and validate the motivation for transformational leadership scale (Gilbert, Horsman, & Kelloway, 2014) and to examine its internal consistency, test-retest reliability, and leadership outcomes. Study Two examined the stability of the construct over a nine month time period using a sample of 58 Salvation Army leaders. Study Three examined the effects of motivation for transformational leadership on subordinate transformational leadership ratings using a sample of 37 leaders matched with 179 followers in the Salvation Army and Cumberland Health Authority. This research provides future researchers with a reliable and valid tool to measure motivation for transformational leadership and provides preliminary evidence of the nature of this new construct.

June 12, 2015.

Motivation for Transformational Leadership in Two Organizations

Organizational leadership has attracted the attention of an increasing number of organizational researchers, resulting in an ever-growing list of leadership theories (for a review see Barling, Hoption & Christie, 2011). There is an extensive body of literature attesting to the effects of leadership on the attitudes and behaviors of followers such as job satisfaction, organizational commitment, and task performance (for a review see Barling et al., 2011). There is also a large literature attesting to the effectiveness of leadership development initiatives in organizations (e.g., Avolio, Reichard, Hannah, Walumba & Chan, 2009; Collins & Holton, 2004).

One key assumption of the leadership literature is that leaders want to engage in effective leadership behaviors. However, leaders may vary in their motivation to be effective in a leadership role, leading to different levels of performance. The available data support the notion that there are individual differences that predict both leader emergence and leader effectiveness (Atwater, Dionne, Avolio, Camobreco & Lau, 1999). One such difference may be the motivation of the leader to engage in effective leadership behaviors. The self-determination theory literature links autonomous forms of motivation to higher job performance (e.g., Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, & DeWitte, 2008), suggesting that leaders who are autonomously motivated may also be more effective.

To study what motivates leaders to be good leaders, Gilbert and Kelloway (2014) proposed a new research area, referred to as motivation for transformational leadership, which integrates transformational leadership theory (Bass, 1985; 1990) and self-

determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000). The current research

offers empirical support to these suggestions. First, I provide evidence for the

psychometric properties of a measure of motivation for transformational leadership

originally proposed by Gilbert, Horsman, & Kelloway (2014). Second, I examine the

stability of motivation in a three wave longitudinal study. Finally, I used matched data to

examine the associations between leaders' motivation for, and followers' perceptions of,

transformational leadership. To introduce this research, I will first review the tenets of

both transformational leadership theory and self-determination theory, and how they are

integrated into motivation for transformational leadership.

Self-Determination Theory. Self-determination theory (SDT; Deci & Ryan,

1985; Ryan & Deci, 2000) distinguishes between three basic types of motivation

(intrinsic, extrinsic, and amotivation) that each influence behavior differently. Whereas

there is only one form of intrinsic motivation, extrinsic motivation refers to engaging in

behavior for instrumental reasons, and SDT specifies different levels of this type of

motivation based on level of internalization (Gagné et al., 2014). Amotivation does not

involve any intentional activity or motivation whatsoever, and thus does not lie on the

autonomy to control continuum. All other types of motivation range along a continuum of

intentional activity from controlled to autonomous motivation (Deci & Ryan, 2000).

Autonomy involves having the experience of choice in one's work, whereas control

involves feeling a sense of pressure in what actions one must engage in (Gagné & Deci,

2005).

While intrinsic motivation is inherently autonomous, levels of extrinsic motivation

lie on a continuum from controlled to autonomous. Controlled motivation involves

feeling a sense of pressure to engage in specific activities and is represented by external

and introjected regulation. External regulation is the most controlled form of extrinsic

motivation and it is necessary when a task is not at all autonomous to the individual, so

external contingencies like rewards and punishments are necessary for motivation (Gagné

& Deci, 2005). Here, an individual may put effort into being a good leader in order to

glean greater job security, a promotion, or to avoid losing their job. Introjected regulation

is a moderately controlled form of motivation whereby the individual's ego is involved in

deciding whether or not to engage in a task (Gagné & Deci, 2005). If an individual feels

that their self-esteem is linked to their job performance, this represents introjected

regulation. Leaders motivated by introjected regulation may behave as a good leader

because they will feel guilty if they do not, or because they feel it is their duty to be a

good leader (Gagné et al., 2014).

     Autonomous motivation consists of integrated and identified forms of extrinsic

regulation as well as intrinsic motivation. Identified regulation is extrinsic motivation that

is described as slightly autonomous, whereby the individual's behavior corresponds with

their personal goals and values, reflecting a part of them (Gagné & Deci, 2005). Leaders

motivated by identified regulation are likely to see the value of behaving as a good leader,

and thus to behave as such, even though they do not find leadership inherently interesting.

Integrated regulation is a type of extrinsic motivation that is slightly more autonomous

because the individual identifies with the importance of the work and sees it as an integral

part of him or herself (Gagné & Deci, 2005). A leader motivated by integrated regulation

is likely to feel that being a good leader is a part of who they are, that it fits with their life

goals, and is a means through which to reach self-actualization.

Intrinsic motivation lies on the most autonomous end of the continuum because the individual chooses to engage in behaviour under his or her own volition (Gagné & Deci, 2005). Intrinsic motivation occurs when the behaviour itself is seen as enjoyable and satisfying and where the behaviour is its own reward (Gagné & Deci, 2005). For example, a leader who is intrinsically motivated to behave as a good leader may choose to do so because he or she finds it enjoyable, exciting, or interesting.

Self-determination theory also recognizes the possibility of amotivation – the state that exists when an individual experiences a lack of control and alienation (Gagné & Deci, 2005). Amotivated leadership behaviours of any sort are minimal, mechanical, and not typically sustained over a long period of time because the leader feels that good leadership is not a priority. See Figure 1 for an outline of self-determination theory.
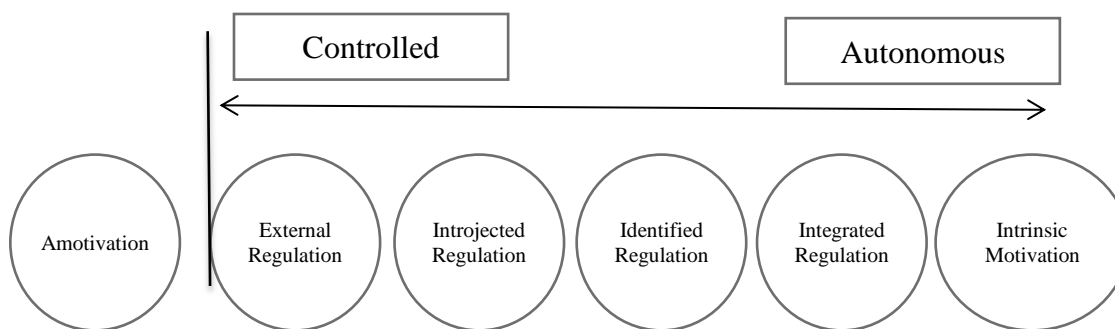
Figure 1. The self-determination continuum.

Full-Range Transformational Leadership Theory. A key purpose of this study is to establish motivation for effective leadership, which entails defining what I mean by good leadership. Significant research evidence supports the tenets of Bass's (1990) transformational leadership theory, and particularly supports the positive outcomes of this

leadership style at both individual- and organizational- levels (see Barling et al., 2011 for

a review). Given the support for this theory, I will define effective leadership in this study

as that which is transformational, and less effective leadership as transactional.

Transformational leadership has been defined as superior leadership performance

that occurs when leaders "broaden and elevate the interests of their employees, when they

generate awareness and acceptance of the purposes and mission of the group, and when

they stir their employees to look beyond their own self-interest for the good of the group"

(Bass, 1985, p. 21). Bass (1985) suggested that the transformational leadership style

comprises four dimensions, namely idealized influence, inspirational motivation,

intellectual stimulation and individualized consideration. Idealized influence occurs when

leaders engender the trust and respect of their followers by doing the right thing, thereby

serving as a role model (Bass, 1985). This dimension is often characterized by

empowering followers, making sacrifices for the good of the group, and involving

followers in decision-making (Barling et al., 2011). Leaders who engage in inspirational

motivation "raise the bar" for their employees, encouraging them to achieve levels of

performance beyond their own expectations (Bass, 1985). Here, leaders inspire

employees to achieve a certain vision for themselves, which often makes work more

meaningful. Intellectual stimulation involves engaging the rationality of subordinates,

getting them to challenge their assumptions and to think about old problems in new ways

(Bass, 1985). Intellectually stimulating leaders may also empower their followers to

become involved in decision-making and encourage them to voice their opinions (Barling

et al., 2011). Lastly, individualized consideration deals with treating employees as

individuals and helping them to meet their needs (Bass, 1985). Spending time coaching

and mentoring employees are both examples of individual consideration.

A large body of research literature supports the effectiveness of transformational

leadership behaviours in the workplace. Transformational leadership is related to

subordinate attitudes and behaviours such as satisfaction (Hater & Bass, 1988; Koh,

Steers & Terborg, 1995), organizational commitment (Barling, Weber, & Kelloway,

1996; Bycio, Hacket, & Allen, 1995; Koh et al., 1995), trust in management (Barling et

al., 1996), organizational citizenship behaviors (Koh et al., 1995), psychological well-

being (McKee et al., 2009), and workplace safety, (Mullen & Kelloway, 2009).

Transformational leadership may also have an impact on organizational level outcomes,

as it is related to higher task performance (e.g., Howell & Frost, 1989; Kirkpatrick &

Locke, 1996; Sosik, Avolio & Kahai, 1997), unit financial performance (Howell &

Avolio, 1993) and group performance and financial performance (Barling et al., 1996).

Given the positive impact of transformational leadership, there is strong support for

promoting this leadership style in organizations.

Bass (1985) also defined more transactional styles of leadership, which are based

on individual exchanges between the leader and each follower. These styles of leadership

range from a lack of response (laissez-faire leadership), to responding to only negative

behaviours (as in active and passive management-by-exception), to providing contingent

rewards and punishments (as in contingent reward leadership). A laissez-faire leader is

simply not involved in the tasks of leadership and avoids decision-making and other

responsibilities associated with their position (Bass, 1985; Hater & Bass, 1988). This

style of leadership is related to lower leader effectiveness, (Hinkin & Schriesheim, 2008a;

Offerman & Hellman, 1996), lower employee performance and cohesion (Bass, Avolio,

Jung, & Berson, 2003), increased employee stress and decreased employee well-being

(Kelloway et al., 2006; Skogstad, Einarsen, Torsheim, Aasland, & Hetland, 2007).

Leaders engaging in management-by-exception intervene with corrective action.

In active management by exception (Bass, 1985), leaders actively monitor employees to

ensure that there are no deviations in performance. Evidence of the outcomes of this

leadership style shows mixed results. Active management by exception has been

negatively related to satisfaction with supervisor and overall job satisfaction (Judge &

Bono, 2000), but positively related to leader job performance, effectiveness, and follower

motivation (Judge & Piccolo, 2004). Leaders engaging in passive management by

exception do not intervene until problems are either brought to their attention or become

serious enough to demand action (Bass, 1985). This style of leadership has been related to

increased injury rates (Zohar, 2002), decreased business unit performance (Howell &

Avolio, 1993), and reduced employee organizational commitment and work motivation

(Judge & Bono, 2000).

Finally, contingent reward leadership is seen as a positive form of transactional

leadership in which leaders engage in goal setting and the provision of task-contingent

feedback to employees. Contingent reward leadership has been closely related to

transformational leadership in some studies (Avolio, Bass, & Jung, 1999; Antonakis,

2001) and can have positive results such as higher leader effectiveness and follower

motivation (Judge & Piccolo, 2004).

Motivation for transformational leadership. Much of the existing leadership

literature focuses on how leaders can motivate subordinates, and a great deal of research

supports the basic tenets of transformational leadership theory in achieving this outcome

(see Judge & Piccolo, 2004). However, the literature has not addressed the nature and

effects of leaders' own motivation. Once in a formal leadership role, does the leader's

motivation influence their likelihood of engaging in transformational or transactional

leadership behaviors? Individual reasons to accept a formal leadership role, or motivation

for role occupancy, may include increased pay, job security, seniority, or personal

interest. However, reasons to be effective once in that role may differ from these.

Importantly, motivation for role occupancy is not necessarily related to motivation for

leader effectiveness. Bass (2008) argued that the qualities required for leader emergence

are not the same as those required for leader effectiveness. The current research is based

on an integration of self-determination theory and transformational leadership theory to

examine the motivation to be an effective leader.

Chan and Dragow (2001) addressed the question of what motivates individuals

for leadership role occupancy. The authors suggested that individuals might vary in their

motivation to assume a formal leadership role. Their construct called motivation to lead

(MTL) outlines three forms of motivation for leadership role occupancy. Affective-

identity MTL refers to individuals who enjoy leading; social-normative motivation to

MTL refers to individuals who feel a duty or responsibility to lead; and, non-calculative

motivation to MTL refers to individuals who lead because they have an agreeable

personality and prefer group harmony and not because of the 'perks' of being a leader

(Chan and Dragow, 2001). These authors define motivation to lead as an "individual-

differences construct that affects a leader's or leader-to-be's decision to assume

leadership training, roles, and responsibilities and that affect his or her intensity of effort

at leading and persistence as a leader" (p. 482). Although Chan and Drasgow (2001)

identified motivation to lead as relatively stable construct, some research suggests that it

can change with experience and training, as management students exposed to

transformational leadership training exhibited significantly more social-normative and

non-calculative motivation to lead than students not exposed to the training (Waldman,

Galvin, & Walumbwa, 2012). Each type of motivation may also predict leader emergence

differently depending on the context. Hong, Catano, and Laio (2011) found that while

affective-identity and non-calculative motivation to lead were positively related to leader

emergence in leaderless discussions, social-normative motivation to lead was related to

leader emergence in long-term project teams, which may be more highly influenced by

social norms.

Using Chan and Drasgow's (2001) model, Kark and Van Dijks (2007) proposed

that leaders who are affectively motivated to lead (i.e., they enjoy leadership) would be

more likely to be transformational because they are more likely to take risks and to be

innovative due to their drive for personal growth and enjoyment in the role. They also

proposed that leaders who are social-normative in their motivation to lead would be more

likely to be transactional because they are motivated out of a sense of duty or obligation,

and are less likely to take risks. Friman (2000) found that transactional leadership was

positively related to values like conformity and security, which may drive prevention-

focused behaviours such as the maintenance of the status quo and preventing deviations

in performance. Transformational leadership was negatively related to values of tradition

in this study. Consistent with these arguments, Hendricks and Payne (2007) found that

affective-identity MTL was positively related to both team ratings of leader effectiveness

and to team performance, whereas social-normative MTL was negatively related to team

leadership effectiveness ratings and unrelated to team performance, suggesting that

social-normative MTL may not be a sufficient form of motivation to facilitate leader

effectiveness.

Although Chan and Drasgow's motivation to lead appears similar to this proposed

theory of motivation for transformational leadership, there are some important

distinguishing features. Specifically, motivation to lead examines factors that motivate

leaders to take on formal leadership roles, whereas motivation for transformational

leadership examines factors that motivate leaders to lead effectively once they are already

in a leadership role. In other words, the primary outcome of motivation to lead is

leadership role occupancy, whereas the primary outcome of interest in motivation for

transformational leadership is leader effectiveness. Specifically, motivation for

transformational leadership defines effective leadership as transformational. I argue that,

while motivation to participate in leadership may indirectly affect level of effort put forth

in leadership, this theory does not directly assess motivation to lead *effectively*.

Importantly, many leaders are motivated to attain a leadership role, but may not

subsequently be motivated to be effective in that role. In order to address this gap in the

literature, the proposed construct of motivation for transformational leadership (Gilbert &

Kelloway, 2014) integrates transformational leadership theory and self-determination

theory to describe how leaders' self-determined motivation to perform well in a

leadership role predicts leadership behavior.

I expect that transformational, transactional, and laissez-faire leadership

behaviours may be related to different levels of internalization. Specifically, the SDT

literature overwhelmingly supports the idea that, on complex tasks, autonomous

regulation is related to higher performance and controlled regulation is related to lower

performance (Amabile, 1982; Grolnick & Ryan, 1987; McGraw & McCullers, 1979).

Accordingly, I predict that autonomous forms of regulation are related to more effective

styles of leadership (transformational and contingent reward leadership), whereas

controlled forms of regulation are related to less effective leadership styles (active and

passive management by exception and laissez-faire leadership) as defined by full-range

transformational leadership theory. First, individuals who are amotivated will be more

likely to engage in laissez-faire or passive leadership behaviours (Kelloway, Mullen &

Francis, 2006; Mullen, Kelloway, & Teed, 2011). Amotivation is characterized by no

intentional activity (Gagné & Deci, 2005), which is similar to the leadership definition of

laissez-faire leadership, whereby the leader does not engage in leadership tasks (Bass,

1985). Thus, I expect that leaders with little motivation to lead effectively will be likely to

engage in very little deliberate and purposeful leadership behavior.

Extrinsic motivation is likely related to transactional leadership behaviours

including contingent reward and both active and passive management by exception.

Transactional leadership is characterized by an exchange relationship between leader and

follower that maximizes the self-interests of both parties (Burns, 1978). By definition,

then, I think that transactional leadership is extrinsically motivated behavior. That is,

transactional leaders may lead well for instrumental reasons (e.g., in order to preserve

one's ego or to earn a promotion. As such, these leaders may be more extrinsically

motivated.

In active and passive management by exception, intervention may take the form of corrective action when employees fail to meet performance standards (active), or addressing a problem that is unavoidable (passive; Bass, 2008). A key difference between active and passive management by exception is the extent to which the leader monitors the work of followers for deviations in performance. In passive management by exception, the leader only intervenes when standards are not met, such that the leader has no motivation to prevent problems, but only to address problems when absolutely necessary (Bass, 1990). This type of leadership is most likely externally regulated, the most controlled type of extrinsic motivation in which an individual acts only when that action will obtain a desired consequence or avoid an undesired consequence (Gagné & Deci, 2005). Leaders characterized by active management by exception engage in ongoing monitoring in order to prevent deviations from work standards and are likely to be more effective than leaders using passive management by exception (Bass, 1999). These types of leaders show an interest in knowing about potential problems so that they may prevent them, perhaps out of a sense of duty or in order to preserve their ego (Kark & Van Dijk, 2007; McConnell, 2007). In other words, any problems that do occur may reflect badly on the leader, and so the leader actively tries to prevent problems. This particular type of leadership, then, may be slightly more autonomously regulated and, thus, most highly motivated by introjected regulation, whereby conserving self-worth or protecting the ego motivates an individual. Overall, management by exception is likely related to the most controlled levels of extrinsic regulation.

Contingent reward leaders tend to reinforce good follower performance in order to maintain high performance. Although contingent reward leadership may sometimes be

transformational (Avolio, Bass, & Jung, 1999; Antonakis, 2001), the primary motivation

for these leaders is instrumental, such that they persist in this pattern of reinforcement

primarily for the value of achieving desired outcomes. Given the close relationship

between contingent reward leadership and transformational leadership, contingent reward

is most likely related to the most internalized forms of extrinsic motivation: identified and

integrated regulation, where leader behavior is at least somewhat consistent with the

leaders' own identity, goals, and values. That is, these leaders identify with, and value,

good leadership, but this leadership is still based primarily on exchanges or transactions

with followers that maximize the self-interests of both parties and is not intrinsic.

Finally, I hypothesize that transformational leadership behavior is intrinsically

motivated. By definition, transformational leaders are not concerned with their own self-

interest, but with the well-being, success, and development of followers (Bass, 2008) and

they often make sacrifices for the good of the group (Barling et al., 2011). These

behaviours reflect intrinsic motivation because they involve a genuine interest by the

leader and are not likely to be motivated by external rewards or punishments or by a sense

of pressure. The key distinguishing characteristic of this form of leadership is that the

leader sacrifices his or her own self-interests, and thereby demonstrates an inherent

interest in the success of their followers, reflecting intrinsic motivation (Gagné & Deci,

2005). This fully internalized motivation may be the key to developing the commitment

necessary for becoming a transformational leader. Further support of this link comes from

empirical evidence, which relates autonomous motivation with prosocial behaviours

(Gagné, 1993; Smith, Organ, & Near, 1983), which are characteristic of transformational

leadership. Importantly, autonomous motivation is related to the highest levels of

performance in many domains (e.g., Grolnick & Ryan, 1989), particularly when the task

and requires creativity, cognitive flexibility, and complex problem solving (Gagné &

Deci, 2005). Thus, in the domain of leadership, which is characterized by complex tasks

and problem-solving, I predict that autonomous motivation will be related to

transformational leadership, the most effective leadership style defined by full-range

transformational leadership theory (Bass, 1985). Figure 2 depicts the hypothesized

relationships between components of self-determination theory and transformational
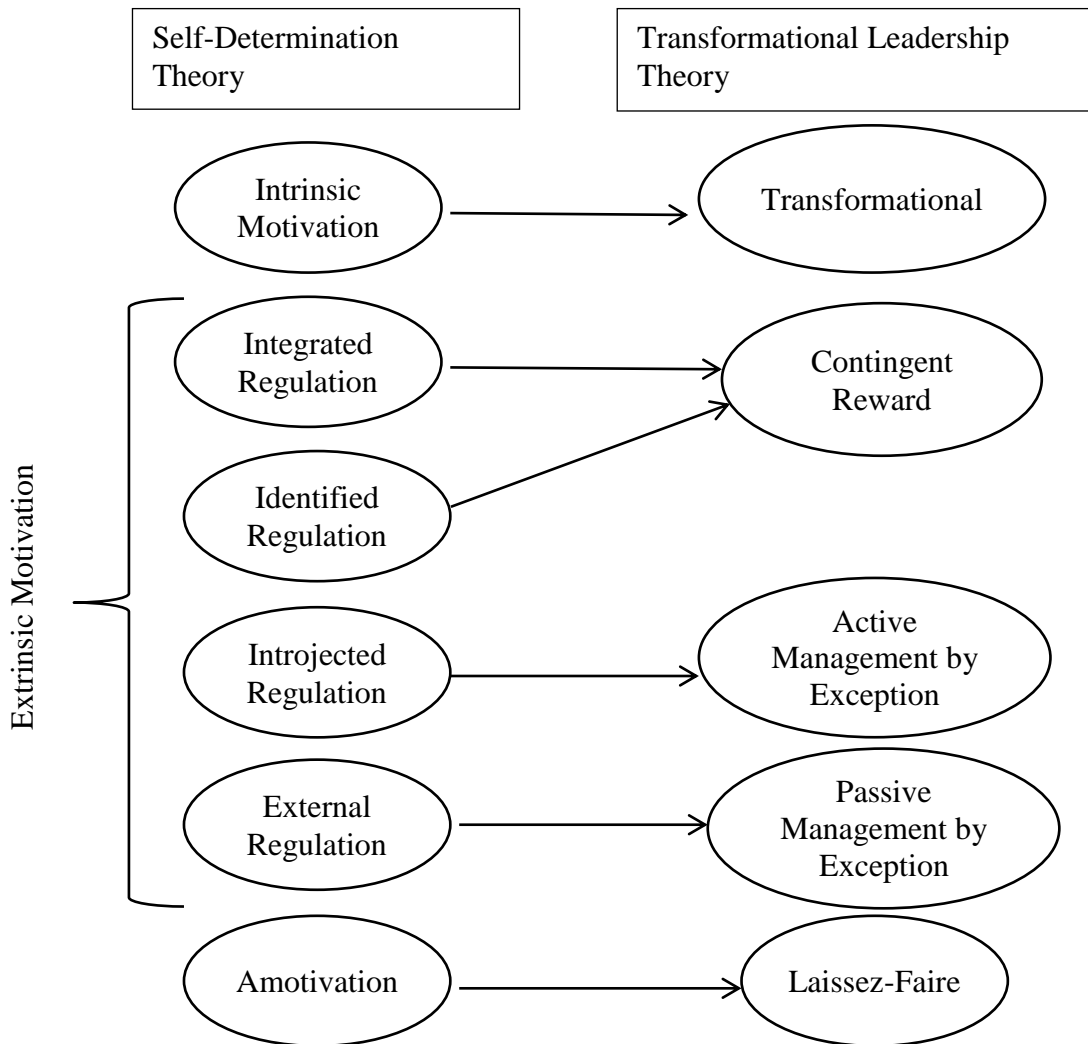
leadership theory.

Figure 2. Hypothesized relationships between levels of internalization and leadership behaviour in motivation for transformational leadership theory.

Gilbert et al. (2014) examined the validity of the Motivation for Transformational Leadership Scale in a cross-sectional survey study involving 310 full-time and part-time employees that were recruited by a market research firm and through online snowball sampling. The hypotheses described above were tested using hierarchical multiple regression analyses whereby the five motivation levels and amotivation were regressed onto each type of leadership. They found that amotivation and identified regulation significantly predicted transformational leadership. The results suggested that transformational leaders are most likely to have low levels of amotivation and high levels of identified regulation. Here, intrinsic motivation was not related to transformational leadership, as was expected. However, this form of motivation was related to one type of transformational leadership behavior: inspirational motivation. Gilbert et al. (2014) suggested that inspirational motivation may be a more enjoyable aspect of transformational leadership, whereas individualized consideration, intellectual stimulation, and idealized influence may require more effort or discipline, characterized by extrinsic motivation. In this analysis, amotivation seemed to be the strongest predictor of transformational leadership, based on the absolute size of the standardized regression coefficients. The second strongest predictor was identified regulation, which may suggest that the leaders' belief that good leadership is important for their self-selected goals is more likely to motivate transformational leadership behaviour than even more internalized forms of motivation. In predicting the other leadership styles, amotivation

was the only significant predictor of laissez-faire leadership, as was predicted. External regulation and intrinsic motivation predicted passive management by exception and external regulation alone predicted active management by exception. Identified and amotivated regulations together predicted contingent reward.

The Current Research. The current research responds to a call for more motivation research that considers the context and situation (Turner & Patrick, 2008; Sivan, 1986; Paris & Turner, 1994; Hickey, 1997), which are "critical in eliciting or maximizing any predisposition to achieve" (Maehr, 1974, p. 64). Three studies served to develop and understand the construct of motivation for transformational leadership in two different organizational contexts.

Study One validated the factor structure of the motivation for transformational leadership scale and examined the hypothesized relationships between full-range transformational leadership theory and motivation for transformational leadership. In doing so, Study One replicated and extended the analysis of Gilbert et al. (2014).

Study Two examined the natural stability of motivation for transformational leadership over time. This study responded to a call for descriptive research aimed at understanding how phenomena such as motivation for transformational leadership unfold over time (Kelloway & Francis, 2012). In particular, Study Two used a three wave longitudinal study to examine the growth curves associated with motivation for transformational leadership over a seven-month period.

Finally, Study Three examined the influence of leader motivation for transformational leadership on subordinate transformational leadership ratings in a multilevel study. In doing so, this Study Three examined whether leaders' individual

motivation had an effect on follower perceptions of transformational leadership.

Conceptually, this is an important question because the effects of leadership are thought

to be mediated largely through employee perceptions (see for example Kelloway &

Barling, 2000). Methodologically, use of data from both employees and leaders

addresses the problem of common method variance, which poses a threat to the

identification of substantive relationships (Podsakoff., MacKenzie, Podsakoff & Lee,

2003).

Specifically, the goals of the current research were to:

1. To further refine and validate a measure of motivation for transformational

leadership.

2. To test the hypothesized relationships between motivation for

transformational leadership and transformational, transactional, and laissez-faire

leadership (as depicted in Figure 2).

3. To look at the nature of change in motivation for transformational leadership

over time.

4. To examine leader- and subordinate-level outcomes of motivation for

transformational leadership, including leader job attitudes and subordinate

leadership ratings.

Study One

The purpose of Study One was to examine the psychometric properties of the

motivation for transformational leadership scale developed by Gilbert et al. (2014). In the

initial study, the scale was validated using a sample of 137 leaders and 161 non-leaders

(12 unidentified) who were all full-time or part-time employees (Gilbert et al., 2014). In contrast, my goal in the current study was to further establish the validity of the scale using a sample of exclusively formal leaders and to examine its relationship with key attitudinal and behavioural outcomes. These outcomes include leaders' own job satisfaction and turnover intentions as well as their self-rated leadership effectiveness.

Specifically, I examined its criterion validity to predict transformational leadership, job satisfaction, and turnover intentions as well as its discriminant validity from Chan and Dragsow's (2001) motivation to lead scale, and its internal consistency and test-retest reliability across two test administrations. This study involved a sample of 279 organizational leaders (both clergy and non-clergy) from within The Salvation Army.

Organizational Context: Leadership in The Salvation Army

The Salvation Army (SA) is Canada's largest non-governmental provider of social services, including addictions programs, family services, children's summer camps, and corrections and justice services. It is a Christian, not-for-profit, charitable organization with a mission to meet the needs of marginalized members of the community. Leadership is critical to the effectiveness of The Salvation Army, which is driven by its mission to serve human needs and functions on minimal resources (Watson & Brown, 2001). Leaders in this organization derive a great deal of meaning and joy from their work, which may drive them to put money to maximum use with great resourcefulness and innovativeness (Watson & Brown, 2001).

Salvation Army leaders consist of both officer (clergy) and layperson employees who work in full-time paid positions. Officers have a Certificate in Salvation Army Officership from the College for Officer Training and have been commissioned

(ordained) by the SA. Officers are compensated with housing, a vehicle lease or vehicle allowance, furnishing and utilities, and a cash allowance based on years of service (The Salvation Army, 2011). Among the five most senior officers in Canada and Bermuda territory in 2010/2011, the average annual cash allowance was $34, 185 (The Salvation Army, 2011).

There are two main career streams for officers: one is corps service (i.e., church ministry) and the other is social services work. Officers may be appointed to any number of leadership positions within these two streams, including the management of corps, or social services work within family services, summer camps, or overseeing other officers within a given division. Every year, any given officer may be re-appointed to a different position, resulting in little job stability over time. This job change may be stressful for officers, who may need to learn new skills to master their new position. Over the past several years, the SA has experienced a large decline in officership, resulting in a greater proportion of layperson leaders. The cause of this decline is unknown, but may be due to the two-year commitment to attend the residential College for Officer Training, to the low annual income, or to the lack of job stability and independence that accompany officership (McCalister, 2012).

Within the Canada and Bermuda territory, there were 836 active SA officers, 928 retired SA Officers, and 9 123 employees as of the 2010/2011 year (The Salvation Army, 2011). Layperson employees outnumber officers tenfold and lay leaders have opportunity to make much more income than officers, with average incomes of $131 625 for senior technical and professional leaders (The Salvation Army, 2011). Unlike officers, layperson leaders are not compensated with housing, a vehicle lease or vehicle allowance,

furnishings or utilities. Layperson leaders are not assigned to run corps, but may

otherwise have similar roles as officers. Officers may differ from layperson leaders due to

their long-term formal commitment to the organization. Officers are also likely to have

less job stability than lay leaders because of annual officer moves, which layperson

leaders are not subject to. The Salvation Army will make decisions about if and where

officers will be moved in June of every year and officers who are moved will begin their

new appointments the following August. The frequency of moves during an officers'

career will vary significantly and is based on the needs of the organization. On the other

hand, layperson leaders have more autonomy in their roles and greater freedom to leave

the organization with fewer consequences compared to officers. Both groups experience

great joy in service, meaning in their work, and high levels of commitment to the

organization (Watson & Brown, 2001). Because of the uniqueness of the organization,

these leaders may be restricted in range on level of commitment to the organization and

the results from this study may not be generalizeable to a more heterogeneous group of

workers. Both layperson and officer leaders participated all three studies below. The

psychometric properties of the motivation for transformational leadership scale were

examined within this Salvation Army context.

Expected Factor Structure of the MTFL Scale

Self-determination theory posits that there are six levels of self-determined motivation

including amotivation, four forms of extrinsic motivation ranging from controlled to

autonomous (external, introjected, identified, and integrated regulations) and intrinsic

regulation (Gagné & Deci, 2005). Some existing measures based on self-determination

theory empirically support these six levels of internalization (e.g., Motivation Towards

the Environment Scale, Pelletier et al., 1998; Regulation of Eating Behaviour, Pelletier,

Dion, Slovinec-D'Angelo, & Reid, 2004; Exercise Motivation Scale, Li, 1999; an

expanded model of the Behavioural Regulation in Exercise Questionnaire, Wilson,

Rodgers, Loitz, & Scime, 2006; Work Extrinsic and Intrinsic Motivation Scale,

Trembley, Blanchard, Taylor, Pelletier, & Villeneuve, 2009; and the Motivation for

Transformational Leadership Scale, Gilbert et al., 2014). Previous researchers have found

empirical support for a model represented by a controlled motivation composite,

consisting of external and introjected regulations, and an autonomous motivation

composite score, where identified and intrinsic motivation are merged together (e.g.,

Vansteenkiste, Lens, De Witte, De Witte, & Deci, 2004). However, Deci et al. (2014)

argue that examining the first-order factors of motivation may be more appropriate for

certain research questions because the subtypes have been related to different outcomes in

previous research (e.g., Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998;

Koestner, Losier, Vallerand, & Carducci, 1996). Further, Gilbert et al. (2014) found

support for the 6-factor structure of the Motivation for Transformational Leadership

Scale. Therefore, the current study hypothesizes that a 6-factor structure will emerge from

the data that represents the full model of motivation as proposed by Deci and Ryan

(1985). Following good modeling practice, I compared the hypothesized 6-factor model

against three competing models: a 1-factor (Kelloway, 2015), a 3-factor model comprised

of amotivation, controlled regulation (external, and introjected), and autonomous

regulation (integrated, identified and intrinsic), and a higher-order model with

amotivation, autonomous, and controlled regulation) as second-order factors.

H1: Motivation for transformational leadership will be best represented by a 6-

factor structure, which includes amotivation, external regulation, introjected

regulation, identified regulation, integrated regulation, and intrinsic motivation.

Validity

Leadership Style: A second set of hypotheses was designed to examine the

relationships between motivation for transformational leadership and full range

transformational leadership style. As proposed above (p. 16), transformational, laissez-

faire, contingent reward, and both active and passive management by exception

leadership behaviours may be motivated differently by each level of internalization.

Specifically, this leads to the following hypotheses:

H2a: Amotivation will positively predict laissez-faire leadership.

H2b: External regulation will predict passive management by exception.

H2c: Introjected regulation will predict active management by exception.

H2d: Identified and integrated regulation will predict contingent reward leadership.

H2e: Intrinsic motivation will predict transformational leadership behavior.

Job Satisfaction: As hypothesized above, transformational leaders are more likely to be

intrinsically motivated, such that they enjoy their work and find it inherently satisfying.

Thus, intrinsically motivated leaders may be more satisfied with their work. Enacting

transformational leadership can have a positive effect on subordinate job satisfaction

(Bass, 1985; Howell and Frost, 1989), but it may also positively influence leaders' own

job satisfaction through several mechanisms.

Transformational leaders are more likely to promote healthier and more effective

work environments by influencing followers positively (e.g., Barling et al., 2011; McKee

et al., 2009) and in doing so, leaders may enhance their own job satisfaction.

Transformational leadership yields the highest performance outcomes compared to

transactional and laissez-faire leadership (Bass, 1985), which will be more intrinsically

and extrinsically rewarding for leaders, and as a result, contribute to job satisfaction

according to self-determination theory and expectancy theories (Deci & Ryan, 1985;

Lawler & Porter, 1967). A more productive work environment and higher performance by

followers, which may be intrinsically satisfying to leaders and may also lead to extrinsic

rewards such as promotion. The effects of rewards due to effective leadership on

satisfaction may be secondary to the effects of its intrinsic rewards. Specifically,

Intrinsically motivated individuals who are engaged in tasks that they find to be important

and interesting tend to have superior job performance as well as job satisfaction (Baard *et

al.*, 2004; Gagné & Deci, 2005). Interestingly, controlled motivation is related to higher

performance, but only in boring and mundane tasks and it is largely unrelated to job

satisfaction (Gagné & Deci, 2005). Vansteenkiste et al. (2007) found that intrinsic work

value orientation was positively related to job satisfaction, whereas external work value

orientation was unrelated to this outcome. In a more recent study, all forms of motivation

(external, introjected, identified, and intrinsic) were positively related to job satisfaction

and that the more internalized the regulation, the greater the job satisfaction (Gagné et al.,

2010). Although the evidence is mixed, taken together, they suggest that autonomous

motivation is related to higher job satisfaction, and that more controlled regulation will be

negatively related or unrelated to this outcome.

Given the challenges and complex relationships leaders manage in their roles,

intrinsic motivation is likely to lead to better performance in these roles as well as to

better job satisfaction. Autonomously motivated leaders may have greater job satisfaction

because they promote an enjoyable and healthy work environment and develop more

positive relationships with followers (Barling *et al*., 2011). Study One examines whether

motivation for transformational leadership predicts job satisfaction, and specifically

whether it explains significant additional variance in job satisfaction over and above Chan

and Drasgow's (2001) Motivation to Lead Scale. That outcome will help to differentiate

motivation for transformational leadership from motivation to lead.

In hierarchical regression analyses, Gilbert et al. (2014) found that motivation for

transformational leadership accounted for significant additional variance explained in job

satisfaction above and beyond motivation to lead. Of the motivation for transformational

leadership variables, introjected and identified regulation were the only two significant

predictors of job satisfaction, such that introjected regulation negatively predicted job

satisfaction and identified regulation positively predicted this attitude. These results

suggested that engaging in effective leadership because one identifies with the value of

leadership plays a key role in promoting positive attitudes towards work. However,

engaging in effective leadership out of a sense of duty or feelings of guilt can detract from

job satisfaction. Interestingly, these results suggest that intrinsic motivation is not

necessary for high job satisfaction. Based on Gagné and Deci's (2005) and Gilbert et al.'s

(2014) findings, I predict that autonomous forms of motivation will be positively related

to job satisfaction, and controlled motivation will be unrelated or negatively related to this

attitude.

H3: Autonomous forms of motivation will be positively related to job satisfaction and controlled motivation

will be unrelated or negatively related to this attitude.

Turnover intentions: In addition to its influence on job satisfaction, motivation for transformational leadership may influence turnover intentions for similar reasons. Considering the organizational cost of leader turnover and the shortage of officer leaders within the Salvation Army, research on how to promote leader retention in this non-profit organization is critical to the sustainability of this particular organization. Leader turnover is costly for organizations because of losses in investing in leader training, recruitment, and organizational learning. New leaders need adequate time to become familiar with organizational procedures and policies before they can be effective (Rowe, Canella, Rankin, & Gorman, 2005). Thus, examining factors that can promote leader retention is vital to organizational performance.

Forest et al. (2009) argued that autonomous motivation might be an important mechanism influencing turnover and organizational financial success. Leaders' own regulation may impact their turnover intentions with the organization because of the positive effects of more internalized regulation on work relationships, productivity, and the work environment (Baard et al., 2004; Gagné & Deci, 2005). More autonomously motivated leaders who value and identify with the role of leader will, by definition, be more likely to enjoy their work and to find it meaningful, an important factor in promoting retention (George & Jones, 1996). Leaders with higher controlled motivation may be more likely to turnover in times where resources are limited in the organization or when downsizing is occurring whereas intrinsically motivated leaders may have intentions to stay despite these conditions. Motivation to lead may be more likely to affect decisions to become a leader (i.e., role occupancy), whereas motivation for transformational leadership may be more likely to affect decisions about whether to

remain in that role (i.e. turnover intentions). Thus, I predict that motivation for

transformational leadership should explain significant additional variance in turnover

intentions above and beyond motivation to lead.

H4: Autonomous forms of motivation will be negatively related to turnover intentions and controlled

motivation will be positively related to turnover intentions above and beyond motivation to lead.

Motivation to Lead: A final series of hypothesis were also devised in order to examine

the relationship between Chan and Drasgow's (2001) Motivation to Lead construct and

Motivation for Transformational Leadership. As discussed above, I expected that

motivation to assume a leadership role is different than motivation to be a good leader,

and; therefore, there should be evidence of discriminate discriminant validity between the

two constructs. Further, I expected that motivation to be a good leader should add

incremental validity to the prediction of leadership style (e.g. transformational leadership)

and job attitudes (job satisfaction and turnover intentions). Therefore hypotheses three to

six dealt with distinguishing motivation to lead from motivation for transformational

leadership:

H5: Motivation for transformational leadership will show evidence of discriminate validity from

motivation to lead.

H6: Motivation for transformational leadership will add incremental validity in predicting

transformational leadership over and above motivation to lead.

H7: Motivation for transformational leadership will add incremental validity in predicting job

satisfaction over and above motivation to lead.

H8: Motivation for transformational leadership will add incremental validity in predicting turnover

intentionsturnover intentions over and above motivation to lead.

Additionally, Study One examined the test-retest reliability of the scale across two test administrations. Responses should be related over time if they reflect the same true variable (Carmines & Zeller, 1979). The test-retest reliability coefficient, or coefficient of stability, is equal to the correlation between the scores obtained at time one and time two on the same scale (Carmines & Zeller, 1979; Crocker & Algina, 2006).

H9: Motivation for transformational leadership will demonstrate high test-retest reliability across two administrations of the scale.

Method

Participants

All officers and lay-people that were in a leadership role in the Salvation Army's Canada and Bermuda territory were contacted by email for this study. A total of 917 organizational leaders within The Salvation Army who have at least one subordinate were surveyed at three time points over the course of a year as part of this entire set of studies. For Study One, leaders who responded at time one only and/or time one and time two were selected for this sample. Table 1 presents the demographic characteristics of the respondents. Participants included a total of 279 leaders (a response rate of 30.4%) including 216 officer leaders and 45 layperson leaders (18 unidentified), 138 males and 122 females (19 unknown). Leaders' ages ranged from 25 to 74 with a mean age of 50.82. Organizational tenure ranged from 2.5 years to 45 years, with a mean tenure of 21.86. Most participants had an undergraduate degree (29.4%) as their highest level of education, while the remainder had high school (20%), diploma (22.7%), or graduate degree educations (27.8%). All ten divisions (including Territorial Headquarters as its own division) were represented in the sample, with the majority of participants working

in the Ontario Central East division (26.4%). The only notable demographic difference

between the two groups were that the layperson leaders tended to be more highly

educated with only 4.7% of layperson leaders that had high school only (versus 23.2% of

officer leaders) and 41.9% of layperson leaders who had graduate degrees (versus only

25.1% of officer leaders). See Table 1 for demographic characteristics.

Table 1. Observed Frequencies: Demographic Characteristics

	Time 1 Respondents (n = 147)		Time 1 & 2 Respondents (n = 132)		Total Sample (N = 279)	
	N	%	N	%	N	%
Gender						
Male	65	48.5	73	57.9	138	53.1
Female	69	51.5	53	42.1	122	46.9
Officership						
Officer	112	83.6	120	94.5	216	82.8
Layperson	22	16.4	7	5.5	45	17.2
Level of Education						
High School	31	23.7	20	16.1	51	20.0
Diploma	27	20.6	31	25.0	58	22.7
Undergraduate	45	34.4	30	24.2	75	29.4
Graduate	28	21.4	43	34.7	71	27.8
Division						
Alberta	6	4.8	9	7.2	15	6.0
Bermuda	3	2.4	2	1.6	5	2.0
British Columbia	10	8.0	18	14.4	28	11.2
Maritime	12	9.6	6	4.8	18	7.2
Newfoundland and Labrador	14	11.2	14	11.2	29	11.6
Ontario Central East	33	26.4	24	19.2	58	23.1
Ontario Great Lakes	23	18.4	19	15.2	42	16.7
Prairie	10	8.0	11	8.8	25	10.0
Quebec	3	2.4	5	4.0	8	3.2
Territorial Headquarters	11	8.8	17	13.6	23	9.2

There were two survey administrations, which took place in October 2012 and

February 2013. Table 1 presents a comparison of respondents at Time 1 and Time 2. A

total of 132 of the 279 leaders completed the survey at both Time 1 and Time 2, and this

sample included 104 officer leaders and 23 layperson leaders (5 unidentified), 173 males

and 53 females (6 unknown). Leaders' ages ranged from 31 to 69 with a mean age of

52.02. Organizational tenure ranged from 3 years to 45 years, with a mean tenure of

22.18. Most of these participants had a graduate degree (34.7%) as their highest level of

education, while the remainder had high school (16.1%), diploma (25%), or

undergraduate degree educations (24.2%). All ten divisions (including Territorial

Headquarters as its own division) were represented in the sample, with the majority of

participants working in the Ontario Central East division (19.2%).

Measures

The survey instrument gathered demographic information on gender, age,

leadership status (officer or layperson), education level, current appointment, and any

recent change in appointment and the possible impact of the change on lifestyle.

Respondents replied to the question: "What is the degree of impact this appointment

change has had on your lifestyle?" using a rating scale from 1 (very weak) to 7 (very

strong) to measure the perceived impact of the change. Other measures are described

below. All inter-scale correlations and reliability information is presented in Table 2.

Motivation for Transformational Leadership Scale

In an initial study of motivation for transformational leadership, Gilbert et al.,

(2014) developed a scale adapted from the Motivation at Work Scale (Gagné, Forest,

Gilbert, Aube, Morin, & Malorni, 2010), which addresses each level of internalization.

Respondents are asked to read a definition of "good leadership," which describes the four

transformational leadership dimensions. The scale begins with the question stem "I put

effort into being a good leader…" and responses are scored on a scale from 1 (strongly

disagree) to 7 (strongly agree). Three items address each type of motivation, including:

external regulation (e.g., "Because I risk losing my job if I don't"), introjected regulation

(e.g., "Because it makes me feel proud of myself"), identified regulation (e.g., "Because I

personally value leadership"), integrated regulation (e.g., "Because being a leader allows

me to express my personal values"), intrinsic motivation (e.g., "Because being a leader

makes me happy"). To measure amotivation, participants responded to the following

question: "Please rate the extent to which you agree or disagree on how you feel about

being a good leader" (e.g., "I just don't care about being a good leader"). Gilbert et al.

(2014) found support for the discriminant validity of the scale from motivation to lead

and its predictive validity for leader outcomes (job satisfaction and transformational

leadership). Alpha reliabilities in the current study were high, ranging from .77-.89.

Motivation to Lead

        Motivation to lead was assessed using Chan and Drasgow's (2001) 27-item scale.

This measure addresses different reasons for wanting to hold a formal leadership role. All

responses use a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly

agree) and assess affective-identity (e.g., "I usually want to be a leader in the groups that I

work in"), social-normative (e.g., "I was taught to believe in the value of leading others"),

and non-calculative (e.g., "I am only interested to lead a group if there are clear

advantages for me") forms of motivation to lead. Alpha reliabilities ranged from .84-.91

for the three scales across three different samples (Drasgow, 2001). In the current study,

internal consistency values ranged from .67 to .78. These values are slightly lower than

those found in other studies (e.g., ranging from .78 to .82; Clemmons & Fields, 2011, and

.75-.88; Hong, Catano, & Liao, 2011).

Transformational Leadership

Transformational leadership was assessed using the 36-item Multifactor

Leadership Questionnaire (Bass & Avolio, 1994); however, the items from the scale that

assessed leader outcomes such as effectiveness, satisfaction, and extra effort, were

removed as they were not relevant. All items assessing full-range transformational

leadership were retained. Items were assessed on a scale from 0 (not at all) to 4

(frequently, if not always) and leaders were asked to rate how they think others in their

workplace would rate them on their display of each leadership behavior. Internal

consistency was reliable at $\alpha > 0.77$ for all subscales (Bass & Avolio, 1990). Due to high

correlations between the four components of transformational leadership ($.405 < r < .603$)

all four components of transformational leadership were combined into one overall factor,

an approach that is consistent with previous research (e.g., Bono & Judge, 2003;

Kelloway, Turner, Barling, & Loughlin, 2012; Kovjanic et al., 2012). The proposed

hypotheses do not differentiate among the four dimensions of transformational leadership,

which further supports their combination into a unidimensional scale. Reliability values in

the current study ranged from .68 to .86 for the transformational and transactional

leadership subscales.

Job Satisfaction

Job satisfaction was assessed using a five-item version of Brayfield and Rothe's

(1951) measure. One example item is "I feel very satisfied with my present job". The

items were measured on a seven-point scale from 1 (strongly disagree) to 7 (strongly

agree). Previous research has reported reliabilities of α = .80 (Judge, Bono, & Locke,

2000; Judge & Klinger, 2008) and α = .88 (Judge, Locke, Durham, & Kluger, 1998) for

this scale. In the current study, the reliability value was .84.

Turnover Intentions

Turnover intentions was measured using three items from the Michigan

Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979).

Items are measured on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly

agree). Items include: "I often think about quitting my job," "It is very likely that I will

actively look for a new job in the next year," and "I will leave this organization in the

next year." Previous studies have reported alpha reliabilities of .90 (Eby & Allen, 2002)

and .86 (Reio & Segredo, 2013). Reliability in the current study was .88.

Design and Procedure

Prior to sending the first of three survey administrations, an email was sent to all

participants by The Salvation Army indicating their support for the project and

emphasizing that it was voluntary and confidential. The survey was conducted online

using Qualtrics, a secure online server. The Salvation Army provided emails for 771

officers and 146 layperson leaders from within the Canada and Bermuda territory. An

email including a link to the informed consent letter and to the survey was sent to all

participants in October, 2012. All three survey administrations included the same scales

(i.e., transformational leadership, motivation for transformational leadership, motivation

to lead, job satisfaction, and turnover intentions) and the demographic information.

Informed consent was obtained if participants clicked "agree" to consent to the study. The

second survey was sent to all participants by email in February, 2012 and the final survey

was distributed in May 2012. Leaders' responses were linked through their work email

addresses. No incentives were provided to participants for responding, as the survey took

fewer than 20 minutes to complete. However, a donation was made to the Salvation Army

of $1 per survey completed or $5 for individuals who completed all three surveys.

Analysis

The factor structure of the Motivation for Transformational Leadership Scale was

analyzed using maximum likelihood confirmatory factor analysis in Mplus v. 7 to

confirm the 6-factor structure hypothesized by Gagné and Deci (2005). In looking for a

good fit to the data, several fit indices were examined. The root mean square error of

approximation (RMSEA) provides a test of close fit of the model to the data by analyzing

residuals and should be less than .10 for a good fit to the data or smaller than .05 for a

very good fit to the data (Steger, 1990). Other research has suggested that RMSEA < .06

suggests a very good fit to the data (Hu & Bentler, 1999). The statistic $p$close provides a

test of significance regarding whether the RMSEA value is significantly different from

.05, such that a significant $p$close test suggests that the RMSEA value is significantly

different from .05 (Kelloway, 2015). Comparative fit indices compare the hypothesized

model to a null or baseline model in which no relationships are specified between

variables in the model (Kelloway, 2014). Two indices of comparative fit will also were

also examined in this study: the comparative fit index (CFI) and Tucker-Lewis Index

(TLI; a non-normed fit index). Both of these indices should also be greater or equal to

0.95 for a good fit to the data (Hu & Bentler, 1999). According to these guidelines, my

the criteria for a good fitting model was a non-significant chi square test, an RMSEA

value less than or equal to .06, a non-significant $p$close test with 90% confidence intervals

that do not include zero, and CFI and TLI values exceeding .95. In the case of closely-

fitting models, theory and parsimony were also considered in choosing the best model.

Hypotheses two to seven were examined using SPSS v. 20.0 and Mplus v. 7.0.

Multiple hierarchical regression analyses were used to test Hypothesis 2 whereby the

control variables age, gender, and education were entered into step one and the

Motivation for Transformational Leadership subscales were entered in step two to predict

each transformational leadership style. Correlational analyses tested Hypotheses 5 and 9,

which examined discriminant validity and test-retest reliability. Hypotheses 6-8 were

examined using hierarchical regression with the control variables entered into step one,

motivation to lead entered in step two of the analysis and motivation for transformational

leadership entered in step three.

Results

Study intercorrelations, means and standard deviations are presented in Table 2.

Table 2. *Intercorrelations with means, standard deviations, and internal consistency values for scales and subscales (N = 242).*

Variable	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	50.82 (8.50)	----											
2. Gender	1.47 (.50)	-.07	----										
3. Education	2.58 (1.10)	.14*	.01	----									
4. Amotivated MTFL	1.40 (.57)	.07	-.18†	-.09	(.87)								
5. External MTFL	2.41 (1.34)	-.04	-.06	.00	.18†	(.83)							
6. Introjected MTFL	4.08 (1.45)	-.09	.18†	-.03	.07	.26†	(.82)						
7. Identified MTFL	6.37 (0.62)	-.05	.18†	.09	-.59†	-.16*	.04	(.77)					
8. Integrated MTFL	4.91 (1.20)	-.17†	.09	.02	-.32†	-.06	.04	.49†	(.89)				
9. Intrinsic MTFL	5.94 (0.87)	.01	.16†	.13*	-.53†	-.13*	-.08	.57†	.46†	(.87)			
10. AI MTL	3.35 (.54)	-.15*	.02	.17†	-.26†	-.15*	-.09	.30†	.57†	.28†	(.78)		
11. NC MTL	3.89 (.39)	.01	.07	-.05	-.42†	-.29†	-.19†	.32†	.09	.21†	.17†	(.67)	
12. SN MTL	3.35 (.48)	-.12	-.03	.16*	-.17†	.05	.03	.23†	.34†	.25†	.33†	.14*	(.76)
13. Laissez Faire	.37 (.42)	-.04	.01	.08	.29†	.11	.12	-.26†	-.31†	-.26†	-.29†	-.27†	-.11
14. PMBE	.72 (.59)	-.06	.00	-.09	.20†	.06	.19†	-.24†	-.22†	-.24†	-.17†	-.21†	.04
15. AMBE	1.22 (.82)	.00	-.06	-.01	-.04	.07	.08	.06	.09	-.02	-.05	-.07	.18†
16. Cont. Reward	2.82 (.59)	.08	.09	.08	-.23†	.03	.01	.36†	.23†	.25†	.18†	.14*	.17*
17. Transformational	3.07 (.42)	.03	.03	.10	-.43†	-.17*	-.18†	.51†	.41†	.48†	.32†	.30†	.20†
18. Job Satisfaction	5.14 (.79)	.17†	.06	.14*	-.35†	-.08	-.01	.27†	.16*	.42†	.09	.21†	.07
19. Turnover intentions	1.63 (.79)	-.13*	-.10	-.03	.19†	.12	-.03	-.14*	-.02	-.25†	.02	-.15*	-.07

Notes. * = *p* < .05. † < .01; MTFL = Motivation for Transformational Leadership; AI MTL = Affective-Identity Motivation to Lead; NC MTL -= Non Calculative Motivation to Lead; SN MTL = Social Normative Motivation to Lead. Coefficient alphas (α) are on the diagonal in parentheses.

Table 2.
Continued

	Intercorrelations						
	13	14	15	16	17	18	19
13. Laissez Faire	(.68)						
14. PMBE	.45†	(.70)					
15. AMBE	.05	.19†	(.86)				
16. Cont. Reward	-.21†	-.21†	.13*	(.68)			
17. Transformational	-.33†	-.38†	.00	.59†	(.83)		
18. Job Satisfaction	-.18†	-.21†	-.06	.22†	.41†	(.84)	
19. Turnover intentions	.09	.03	-.02	-.02	-.13	-.41†	(.88)

Notes. * = $p < .05$. † $< .01$; PMBE = Passive Management by Exception; AMBE = Active Management by Exception; Cont. Reward = Contingent Reward. Coefficient alphas (α) are on the diagonal in parentheses.

Descriptive Results

Officers and lay leaders did differ slightly on some of the study variables. Officer leaders had significantly lower external regulation (M = 2.243, SD = 1.11) than layperson leaders (M = 3.32, SD = 1.87, t (49.41) = -3.67, p < .01) and exhibited significantly greater passive management by exception (M = .74, SD = .59) than layperson leaders (M = .51, SD = .52, t (256) = 2.39, p < .05). Layperson leaders exhibited significantly greater social normative motivation to lead (M = 3.49, SD = .53) than officer leaders (M = 3.31, SD = .47, t(258) = -2.33, p < .05). Otherwise, there were no significant differences between the two groups on leadership styles, motivation for transformational leadership, motivation to lead, job satisfaction, or turnover intentions. Table 3 presents the t-test results comparing officers and layperson leaders on all study variables.

Table 3. T-test results comparing officer (N = 216) and layperson (N = 45) leaders on study variables.

Variable	Officers	Laypeople		
	M (SD)	M (SD)	T value	df
Amotivated MTFL	1.42 (.60)	1.29 (.43)	1.74	80.85
External MTFL	2.24 (1.11)	3.32 (1.87)	-3.67†	49.41
Introjected MTFL	4.16 (1.44)	3.87 (1.52)	1.20	257
Identified MTFL	6.34 (.61)	6.52 (.62)	-1.73	258
Integrated MTFL	4.90 (1.16)	4.95 (1.35)	-.24	256
Intrinsic MTFL	5.93 (.89)	6.01 (.78)	-1.11	258
AI MTL	3.33 (.47)	3.40 (.50)	-.83	258
NC MTL	3.88 (.39)	3.95 (.40)	-1.15	258
SN MTL	3.31 (.47)	3.49 (.53)	-2.33*	258
Laissez Faire	.39 (.43)	.26 (.36)	1.88	258
PMBE	.74 (.59)	.51 (.52)	2.39*	256
AMBE	1.14 (.74)	1.35 (1.06)	-1.23	53.50
Cont. Reward	2.79 (.58)	2.97 (.58)	-1.80	248
Transformational	3.05 (.42)	3.14 (.44)	-1.23	259
Job Satisfaction	5.13 (.77)	5.25 (.88)	-.96	256
Turnover intentions	1.59 (.75)	1.70 (.85)	-.93	255

Notes. $* = p < .05.$ † $< .01$; MTFL = Motivation for Transformational Leadership; AI MTL = Affective-Identity Motivation to Lead; NC MTL -= Non Calculative Motivation to Lead; SN MTL = Social Normative Motivation to Lead; PMBE = Passive Management by Exception; AMBE = Active Management by Exception; Cont. Reward = Contingent Reward.

I further examined how demographic variables were related to the motivation for transformational leadership subscales. Tenure in current appointment and organizational tenure were both unrelated to leader motivation. Age was significantly related to

integrated regulation ($r = -.17$, $p < .05$) and education was significantly related to intrinsic

motivation ($r = .13$, $p < .05$). Males and females also significantly differed on some forms

of motivation: males ($M = 1.50$, $SD = .64$) tended to be higher in amotivation than

females ($M = 1.29$, $SD = .48$, $t(257) = 2.88$, $p < .05$). Females ($M = 4.39$, $SD = 1.45$)

scored significantly higher on introjected regulation than males ($M = 3.87$, $SD = 1.41$,

$t(256) = -2.94$, $p < .05$). Females scored higher on identified regulation ($M = 6.49$, $SD =$

.59) than males ($M = 6.27$, $SD = .62$, $t(257) = -2.87$, $p < .05$); and females ($M = 6.10$, SD

$= .75$) scored higher than males on intrinsic motivation ($M = 5.81$, $SD = .96$, $t(257) = -$

2.64, $p < .05$).

Factor Structure

Hypothesis 1 predicted that Motivation for Transformational Leadership would be

represented by a 6-factor structure confirming Gagné and Deci's (2005) model, which

includes amotivation, external regulation, introjected regulation, identified regulation,

integrated regulation, and intrinsic motivation. This hypothesis was tested using

Confirmatory Factor Analysis (CFA) in Mplus. Hypothesis 1 was fully supported; the

hypothesized 6-factor structure was a good fit to the data ($\chi^2_{(120, N = 278)} = 228.31$, $p <$

0.001; CFI $= 0.96$, TLI $= .95$, RMSEA $= 0.06$, $p$close $= 0.15$, 90% C.I. $= 0.05 - 0.07$) and

all items loaded on their prospective factors as expected (see Table 4 for CFA results

comparing four different models and Table 5 for the standardized factor loadings from the

6-factor model).

I tested three competing models against the 6-factor model: a 1-factor model, a 3-

factor model representing amotivated, controlled (external, and introjected), and

autonomous (integrated, identified and intrinsic) motivation, and a higher-order model

with amotivation, autonomous, and controlled regulation) as second-order factors. The 6-

factor structure fit the data better than a one-factor solution ($\chi^2_{(135, N = 278)}$ =1667.65, $p <$

0.001; CFI = 0.44, TLI = .36, RMSEA = 0.20, $p$close = 0.00, 90% C.I. = 0.19 - 0.21) and

a 3-factor model ($\chi^2_{(132, N = 278)}$ = 1024.18, $p < 0.001$; CFI = 0.67, TLI = .62, RMSEA =

0.16, $p$close = 0.00, 90% C.I. = 0.15 - 0.16). The higher-order model fit the data well

($\chi^2_{(127, N = 278)}$ = 240.50, $p < 0.001$; CFI = 0.96, TLI = .95, RMSEA = 0.06, $p$close = 0.15,

90% C.I. = 0.05 -0.07), however a Chi square difference test comparing the 6-factor

solution and the higher-order solution was non significant (χ^2_{diff} = 12.19, p > .05).

Table 4. *Results of competing models in CFA.*

Model	Chi Square	df	CFI	TLI	RMSEA	pclose
1-factor	1667.65	135	.44	.36	.20	.00
3-factor	1024.18	132	.67	.62	.16	.00
6-factor	228.31	120	.96	.95	.06	.15
Higher-order	240.50	127	.96	.95	.06	.15

Table 5. *CFA Standardized Factor Loadings*

	F1	F2	F3	F4	F5	F6
External Regulation						
...because others will reward me financially (e.g., supervisor, colleagues, family, clients) (Ext8)	**.69**					
...to avoid losing financial benefits (ext9)	**.96**					
...because I risk losing my job if I don't (ext10)	**.75**					
Introjected Regulation						
...because otherwise I will feel guilty (intro 2)		**.81**				
...because otherwise I will feel bad about myself (Intro3)		**.86**				
...because otherwise I would be ashamed of myself (intro6)		**.67**				
Identified regulation						
...because it has a lot of personal meaning to me (ident4)			**.77**			
...because I believe it is worth the effort to be a good leader (ident5)			**.76**			
...because it aligns with my values (ident6)			**.65**			
Integrated Regulation						

...because it comes naturally to me (integ5)   **.84**
...because I was born to be a leader (integ6)   **.92**
...because it is part of my identity (integ7)   **.79**
Intrinsic Motivation
...because what I do as a leader is exciting   **.90**
(int6)
...because the work I do as a leader is   **.92**
interesting (int7)
...because I find it energizes me (int9)   **.71**
Amotivation
I put little effort into being a good leader   **.85**
(amot5)
I don't care about being a good leader (amot6)   **.89**
I really feel like I would be wasting my time   **.78**
by being a good leader (amot4)

Hypothesis Testing

In order to examine Hypothesis 2, which posited that different sources of motivation

might be more closely related to specific leadership styles. A hierarchical regression

analysis was conducted whereby age, gender, and education were entered as control

variables in step one of the analysis and the five motivation levels and amotivation were

entered in step two to predict each type of leadership. Hypothesis 2a predicted that

amotivation would positively predict laissez-faire leadership. The control variables

together accounted to .1% of the variance in the criterion, $F(3, 235) = .58$, $p > .05$, and

none of the predictors were significant. The model including all six types of motivation in

step two accounted for 15% additional variance explained in laissez-faire leadership, $\Delta F_{(6, 229)} = 6.51$, $p < .01$. This hypothesis was supported: amotivation was a significant predictor

($\beta = .19$, $t_{(229)} = 2.41$, $p < .05$) in predicting laissez-faire leadership, which was also

predicted by integrated regulation ($\beta = -.24$, $t_{(229)} = -3.29$, $p < .01$).

Hypothesis 2b predicted that external regulation would predict passive

management by exception. The control variables accounted for 1% of the variance in this

style, F(3, 233) = .54, p > .05, and none of the predictors were significant. The model in

step two accounted for an additional 12% of the variance in MBEP, $\Delta F_{(6, 227)} = 5.37$, p

< .01. The hypothesis was not supported: introjected regulation (β = .20, $t_{(227)}$ = 2.96, $p <$

.01) and integrated regulation (β = -.18, $t_{(227)}$ = -2.48, $p < .05$) were the only two

significant predictors of MBEP and external regulation was not a significant predictor.

Hypothesis 2c predicted introjected regulation would predict active management

by exception. This hypothesis was also not supported. In predicting active management

by exception, none of the control variables were significant predictors in step one of the

analysis (R^2 = .00, $F_{(3, 234)}$ = .22, p > .05) were significant. The model in step two

accounted for an additional 3% of the variance explained in this style, and this amount

was not significant ($\Delta F_{(6, 228)}$ = 1.07, p > .05).

Hypothesis 2d predicted that identified and integrated regulation would predict

contingent reward leadership. This hypothesis was partially supported. The model in step

one accounted for 2% of the variance in contingent reward leadership ($F_{(3, 228)}$ = 1.56, $p >$

.05) and none of the predictors were significant. The MTFL subscales added step two

accounted for an additional 12% of the variance in this outcome ($\Delta F_{(6, 222)}$ = 5.27, p <

.01). In this step, identified regulation (β = .32, $t_{(222)}$ = 3.50, $p < .01$) was the only

significant predictor.

Finally, hypothesis 2e predicted that intrinsic motivation would predict

transformational leadership behavior. This hypothesis was supported, as none of the

control variables significantly predicted this style in step one (R^2 = .12, $F_{3, 236)}$ = 1.03, p >

.05), and in step two intrinsic (β = .16, $t_{(236)}$ = 2.32, $p < .05$) as well as integrated (β = .17,

$t_{(236)}$ = 2.63, $p < .01$), identified (β = .27, $t_{(236)}$ = 27, $p < .01$), introjected regulation (β = -

.16, $t_{(236)}$ = -3.52, p < .01), and amotivation (β = -.15, $t_{(236)}$ = -2.23, p < .01) were all

significant predictors. The model accounted for 37.0% of the variance explained in

transformational leadership ($F_{(6, 236)}$ = 23.27, p < .001). Regression results are presented

in Appendix E.

Test-Retest Reliability

Internal consistency values for the Motivation for Transformational Leadership

subscales were high, ranging from .77 to .89. As another measure of reliability, I also

assessed test-retest reliability on a subset of the total study sample consisting of 132

participants who responded at both time one and time two. The two test administrations

were approximately four months apart. Stability coefficients were computed at the scale

level as the number of subjects available for the analysis was insufficient for modeling.

The following coefficients were obtained for each scale: amotivation, r = .69 external, r =

.68; introjected, r = .62; identified, r = .67; integrated, r = .82; intrinsic, r = .68. Paired t-

tests did not reveal any significant differences between mean scores at the two

administrations and there were no significant differences between time 1 and time 2 scale

mean scores.

Discriminant Validity

Hypothesis 3 addressed whether the motivation for transformational leadership

construct was distinct from the Chan and Drasgow (2001) motivation to lead construct.

Hypothesis 3 predicted that motivation for transformational leadership would show

evidence of discriminate discriminant validity from motivation to lead. The data largely

supported this hypothesis, as the vast majority of correlations between the two constructs

were moderate to low (ranging from - .30 to + .30), with four exceptions (ranging

between -.42 to +.57). Correcting for attenuation, correlations were largely still moderate

to low (ranging from - .30 to + .30) with eight exceptions (ranging from - .55 to + .68).

The highest correlations, corrected for attenuation, were between integrated motivation

for transformational leadership and affective identity motivation to lead ($r = .68$) and

between amotivation and non-calculative motivation to lead ($r = -.55$). All correlations

are presented in Table 2.

Hypothesis 4 predicted that motivation for transformational leadership would add

incremental validity in predicting transformational leadership over and above motivation

to lead. The results are presented in table three. In step one of a hierarchical regression

analysis, the control variables age, gender, and education were entered due to correlations

between these variables and the motivation for transformational leadership subscales and

this step accounted for 1.3% of the variance in transformational leadership, $F_{(3, 235)} =$

1.007, p > .05 and none of the predictors were significant. In step two of the analysis,

affective identity, social normative, and noncalculative motivation to lead were entered

together as the motivation to lead construct, which accounted for an additional 20.3% of

the variance in transformational leadership, $\Delta F_{(3, 232)} = 20.07$, p < .001. In this step,

noncalculative motivation to lead ($\beta = .29$, $t_{(232)} = 4.89$, $p < .001$) and affective-identity

motivation to lead ($\beta = .26$, $t_{(232)} = 4.15$, $p < .001$) were significant predictors of

transformational leadership and social normative was not a significant predictor. Step

three saw the addition of amotivation, external, introjected, identified, and integrated

regulation, as well as intrinsic motivation; all of which form the motivation for

transformational leadership scale. MFTL accounted for an additional 18.6% of the

variance in transformational leadership beyond that of MTL, $\Delta F_{(6, 226)} = 11.72$, $p < .001$.

In this step, introjected ($\beta = -.14$, $t_{(226)} = -2.52$, $p < .01$), identified ($\beta = .25$, $t_{(226)} = 3.33$, $p < .001$), and intrinsic motivation ($\beta = .15$, $t_{(226)} = 2.23$, $p < .05$) were significant unique predictors of transformational leadership.

Hypothesis 5 predicted that motivation for transformational leadership would add incremental validity in predicting job satisfaction over and above motivation to lead. The control variables accounted for 3.7% of the variance in job satisfaction in step one ($F_{(3, 233)} = 2.96$, p $< .05$), and none of the predictors were significant. In step two, MTL accounted for an additional 6.6% of the variance in job satisfaction ($\Delta F_{(3, 230)} = 5.66$, p $< .001$) and here, non-calculative motivation to lead was the only significant predictor ($\beta = .21$, $t_{(230)} = 3.33$, $p < .001$). In step three, with the addition of the motivation for transformational leadership subscales, an additional 12.7% of the variance was accounted for $\Delta F_{(6, 224)} = 6.16$, $p < .001$ and amotivation ($\beta = -.19$, $t_{(224)} = -2.28$, $p < .05$) and intrinsic motivation ($\beta = .30$, $t_{(224)} = 3.78$, $p < .001$) were significant predictors.

Finally, Hypothesis 6 posited that motivation for transformational leadership would add incremental validity in predicting turnover intentions over and above motivation to lead. In step one, the control variables accounted for 2.5% of the variance in turnover intentions , $F_{(3, 232)} = 1.97$, p $> .05$ and none of the varibles were significant. MTL accounted for an additional 7.9% of the variance in turnover intentions, $\Delta F_{(3, 229)} = 4.52$, p $< .01$ and social normative ($\beta = -.15$, $t_{(229)} = -2.20$, $p < .05$) and non-calculative ($\beta = -.17$, $t_{(229)} = -2.70$, $p < .01$) motivation to lead were significant predictors. With the addition of motivation for transformational leadership, variance explained increased by 6.7% ($\Delta F_{(6,}$

$_{223)} = 2.94$, $p < .01$) and intrinsic motivation was the only significant predictor ($\beta = -.24$,

$t_{(223)} = -2.890$, $p < .01$).

Discussion

Model Testing

  Study One's results supported the 6-factor model of self-determined motivation

for effective leadership, which is fully representative of Gagné and Deci's (2005) model.

Although the 6-factor model did not fit significantly better than the second-order model,

previous theory best supports the 6-factor model. This model is the most parsimonious, as

fewer parameters are estimated and because it doesn't involve a higher-order structure.

  These findings are particularly significant in that they empirically distinguished

between identified and integrated regulation, which supports the theoretical difference

between these two levels of internalization. This difference has been difficult to establish

in previous studies of SDT (e.g. Gagné *et al*., 2010; Ryan & Connell, 1989; Vallerand *et

al*., 1992), however Gilbert et al.'s (2014) findings support the results of the current

study. The higher-order model did not fit significantly better than the 6-factor model,

suggesting that the 6-factor solution is the best solution and most parsimonious model

with more theory supporting its structure.

Table 6. *Results of Hierarchical Regression Analysis predicting job satisfaction, turnover intentions and transformational leadership.*

	Job Satisfaction				Transformational Leadership				Turnover Intentions			
	B	SEB	β	t	B	SEB	β	t	B	SEB	β	t
Step 1: Control Variables	$\Delta R^2 = .037, \Delta F(3, 233) = 2.963*$				$\Delta R^2 = .013, \Delta F(3, 235) = 1.001$				$\Delta R^2 = .025, \Delta F(3, 232) = 1.965$			
Age	.011	.006	.124	*1.903*	.001	.003	.029	*.444*	-.009	.006	-.096	*-1.458*
Gender	.116	.102	.073	*1.138*	.043	.055	.050	*.776*	-.188	.098	-.125	*-1.919*
Education	.082	.047	.115	*1.766*	.036	.025	.094	*1.433*	-.016	.045	-.023	*-.351*
Step 2: MTL Scales	$\Delta R^2 = .103, \Delta F(3, 230) = 5.661\dagger$				$\Delta R^2 = .216, \Delta F(3, 232) = 20.07\dagger$				$\Delta R^2 = .079, \Delta F(3, 229) = 4.516\dagger$			
Affective Identity MTL	.127	.098	.87	1.293	.202	.049	.259	4.147†	.031	.095	.023	.330
Non-calculative MTL	.433	.130	.212	3.335†	.315	.065	.289	4.889†	-.232	.105	-.150	-2.199*
Social-normative MTL	.093	.111	.057	.837	.099	.054	.114	1.817	-.341	.126	-.175	-2.704†
Step 3: MFTL Scales	$\Delta R^2 = .230, \Delta F(6, 224) = 6.157\dagger$				$\Delta R^2 = .402, \Delta F(6, 226) = 11.722\dagger$				$\Delta R^2 = .147, \Delta F(6, 223) = 2.937\dagger$			
Amotivation	-.249	.110	-.187	-2.276*	-.072	.050	-.100	-1.428	.014	.107	.011	.129
External Regulation	.010	.037	.017	.257	-.006	.018	-.018	-.314	.060	.038	.108	1.594
Introjected Regulation	.038	.035	.071	1.104	-.041	.016	-.143	-2.526†	-.044	.035	-.084	-1.240
Identified Regulation	-.048	.114	-.036	-.418	.178	.053	.254	3.330†	-.080	.115	-.064	-.701
Integrated Regulation	.016	.055	.025	.295	.044	.026	.126	1.725	.104	.055	.168	1.903
Intrinsic Motivation	.284	.075	.305	3.783†	.074	.033	.155	2.238*	-.207	.071	-.243	-2.895†

*Notes. * = p < .05, † = p < .01.*

Hypothesis Testing

I found partial support for some hypotheses. As expected, amotivation predicted laissez-faire leadership. Interestingly, integrated regulation also emerged as a significant negative predictor, suggesting that, in addition to having higher levels of amotivation, laissez-faire leaders also tend to have lower levels of the most autonomous form of extrinsic regulation. These types of leaders are unlikely to believe that being a good leader is a part of their identity, that it fits with their life goals, and is a means of achieving fulfillment, which may be a key reason why they tend to have no motivation to exhibit good leadership. In other words, if leaders feel that being a good leader can contribute to fulfillment of life goals, then they are unlikely to be laissez-faire leaders. Gilbert et al. (2014) also found a significant positive relationship between amotivation and laissez-faire leadership, but did not find that integrated regulation predicted this leadership style.

External regulation was expected to predict passive management by exception (Hypothesis 2b) and introjected regulation to predict active management by exception (Hypothesis 2c). These hypotheses were not supported, as introjected and integrated regulations significantly predicted passive management by exception such that these leaders are more likely to be introjected and less likely to be integrated. Gilbert et al. (2014) found that external regulation positively predicted passive management by exception and that intrinsic motivation negatively predicted this style. Perhaps in this particular sample of leaders, those who wait for problems to emerge or become dire (as in passive management by exception) tend to be more motivated to action by their own feelings of guilt that are a result of their inaction to prevent problems from occurring.

Further, leaders who identify as a leader (as in integrated regulation) are less likely to be passive avoidant.

Motivation for transformational leadership did not predict active management by exception, where leaders actively seek out and address deviations in performance. Much previous research has noted that active and passive management by exception are independent constructs with low or non-significant correlations (e.g., Avolio, Bass, & Jung, 1998; Garman, Davis-Lenane, Corrigan, 2003). As such, there may be something inherently different between these two styles of leadership that explains why motivation for transformational leadership predicts passive but not active management by exception. Active management by exception is more likely to be perceived as abusive by followers, as these leaders are more likely to loudly and publicly correct followers' mistakes, leading to embarrassment and decreased well-being over time (Barling et al., 2011; Kelloway, Sivanathan, Francis, & Barling, 2005). Whereas passive managers by exception may be less effective because they lack leadership skills, active managers by exception may be less effective because they are overly punitive and so heavily focused on mistakes rather than accomplishments (Kelloway, Sivanathan, Francis, & Barling, 2005). While passive managers may desire and attempt to be effective leaders in some circumstances, active management by exception is more highly related to an abusive and punitive style of leadership. Thus, I think that passive managers by exception may sometimes be motivated to be transformational, whereas active management by exception may simply be unrelated to motivation for transformational leadership. However, this was not the case in Gilbert et al.'s (2014) study, which found that external regulation was a significant positive predictor of active management by exception. The inconsistency may

be due to differences between the two samples, and specifically to higher ratings of active

management by exception in the Gilbert et al. sample.

There was partial support for Hypothesis 2d, in that identified regulation was

positively related to contingent reward leadership, suggesting that these leaders identify

with the importance of good leadership, but do not fully internalize it. This level of

autonomous extrinsic motivation, then, may inspire this more positive form of

transactional leadership, where the focus is still on exchange, but where rewards are

offered for good performance. Integrated regulation was not important for contingent

reward perhaps because, as a more autonomous regulation, it is more predictive of

transformational leadership than contingent reward leadership. These results are partially

consistent with Gilbert et al.'s (2014) findings, where identified and amotivated

regulations were predictive of contingent reward such that identified was a positive

predictor and amotivation was a negative predictor.

Hypothesis 2e was supported; intrinsic motivation predicted transformational

leadership behavior. In addition, integrated and identified regulations both positively

predicted transformational leadership and introjected motivation and amotivation were

significant negative predictors of transformational leadership. These findings suggest that

transformational leaders tend to have high levels of intrinsic and autonomous forms of

extrinsic regulation, and low levels of introjected regulation and amotivation. These

findings are partially consistent with Gilbert et al.'s (2014) findings, where identified

regulation positively predicted transformational leadership and amotivation negatively

predicted this style. Transformational leaders are likely to not only enjoy being good

leaders but also to feel like they identify with the importance of good leadership and that

being a transformational leader is a part of who they are. In addition, transformational

leaders are less likely to feel that their self-esteem is linked to their job performance or to

act out of guilt or a sense of duty. Interestingly, external regulation does not seem related

to transformational leadership, suggesting that seeking external contingencies may not

affect whether one exhibits this style of leadership. In short, these findings support the

idea that motivation for transformational leadership is important for transformational

leadership, and that, in general, transformational leaders have high autonomous regulation

and low controlled motivation and amotivation.

Test-retest reliability of the Motivation for Transformational Leadership Scale was

assessed using stability coefficients. The interpretation of stability coefficients is

somewhat ambiguous, as there are few, if any, accepted standards for acceptable values

(Crocker & Algina, 2006). The values found here compare favourably with those found

for other well-accepted scales; For example, aptitude tests such as the Weschler Adult

Intelligence Scale (WAIS), tend to have the highest test-retest stability values (Crocker &

Algina, 2006) and the WAIS has shown short-term test-retest coefficients in the .70s

(Weschler, 1958); Crocker and Algina (2006) suggested that attitude scales often have

scores lower than those shown by aptitude tests. Similar scales assessing motivation

based on self-determination theory, such as the motivation for sport scale, which assesses

amotivation, external, introjected and identified forms of motivation towards sport, had

test-retest values ranging from .58-.84 (Pelletier, Fortier, Vallerand, Tuson, Brière, &

Blais, 1995); In another study, test-retest correlations of a scale of motivation for

academic motivation ranged from .71 to .83 (Vallerand, Pelletier, Blais, Brière , Senécal,

& Vallières, 1992). In addition, Amabile, Hill, Hennessey, and Tighe (1994) found

support for high stability in their work preference inventory, which assesses extrinsic and intrinsic motivation orientation where they saw short-term stability coefficients ranging from .80 to .94. They conclude that this stability provides evidence for the nature of motivation as an enduring individual difference characteristic. As such, scores in the .60s, such as those obtained for the Motivation for Transformational Leadership Scale, suggest acceptable stability in this scale.

The test-retest reliability may be underestimated in this study because of the length of time (4 months) between testing. In this situation, memory is not likely to affect responses, such that the respondent is less likely to remember their responses for the previous test and to respond the same way (Carmines & Zeller, 1979). In fact, it's likely that these values underestimate the test-retest reliability because of reactivity, whereby by measuring motivation for transformational leadership at time one, this has made participants more sensitive to their own type of motivation by the time two measure, resulting in different scores at time two (Carmines & Zeller, 1979). It is also possible that true change in motivation for transformational leadership has occurred over time due to other circumstances such as organizational change or other factors, which is contributing to low correlations between scores at time one and time two. Reliability is necessary to establish validity, but is not enough evidence on its own to establish validity (Nunnally, 1978). Further analyses attempted to establish the validity of the scale by examining its discriminant and concurrent validity.

I found support for the discriminant validity of the Motivation for Transformational Leadership Scale from Chan and Drasgow's (2001) Motivation to Lead Scale. Low

correlations between the two sets of subscales suggest that these two scales measure

different constructs and supports its use in future research.

Motivation for transformational leadership also accounted for significant incremental

variance above and beyond motivation to lead in predicting transformational leadership,

job satisfaction, and turnover intentions. These results further support the utility of the

scale in adding unique prediction to these outcomes and distinguish it from motivation to

lead. The findings also suggest the importance of motivation for transformational

leadership for leader outcomes of job satisfaction and turnover intentions as well as

transformational leadership. Specifically, intrinsic motivation for transformational

leadership is key in leaders' own job satisfaction and turnover intentions. So, promoting

this type of motivation in leaders or selecting intrinsically motivated leaders, may be

important for the leaders' own wellbeing and for organizational outcomes.

Study Implications

The results of this study confirmed the factor structure of the motivation for

transformational leadership items and provided support for its internal consistency, test-

retest reliability, discriminant validity from the motivation to lead scale and its criterion

validity for predicting transformational leadership, job satisfaction, and turnover

intentions. To my knowledge, this is the first study to examine leaders' own motivation to

be effective in their roles.

An important implication for this study is the confirmation of the 6-factor model

of leader motivation, which supports Gagné and Deci's (2005) model of self-

determination and the structure of similar scales based on the theory (Gagné et al., 2010;

Scott et al., 2011). This model uniquely identifies each of the five levels of internalization

as well as amotivation. The motivation for transformational leadership scale represents self-determination theory in applying it to leadership and extends previous research that links autonomous forms of motivation to higher job performance (e.g., Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, & DeWitte, 2008). These results and those of the previous work on the scale (Gilbert et al., 2014) support its utility for use in future studies.

Although some research has examined motivation for leader emergence (Chan & Drasgow, 2001; Hong et al., 2011), there is a dearth of literature examining motivation for leader effectiveness. The current study addresses this gap by validating a scale to measure leaders' motivations to perform well in a leadership role. By integrating two prominent organizational theories, transformational leadership theory and self-determination theory, this study also extends beyond Chan and Drasgow's (2001) model of motivation to lead in that it addresses leader motivation for effectiveness rather than motivation to occupy a leadership role. As the findings above suggest, motivation for transformational leadership is distinct from motivation to lead and shows concurrent validity in predicting transformational leadership, job satisfaction, and turnover intentions.

This study supports the utility of motivation for transformational leadership in predicting transformational leadership and organizational outcomes. Limited research has examined predictors of transformational leadership, but has identified some predictors such as personality (Judge & Bono, 2000), emotional intelligence (Barling, Slater, & Kelloway, 2000) and aspects of the work environment such as control (Nielsen & Cleal, 2011). Given the large body of literature that supports the positive impact of

transformational leadership on subordinate outcomes such as job satisfaction (Hater &

Bass, 1988; Koh, Steers & Terborg, 1995), psychological well-being (McKee et al.,

2009), and task performance (e.g., Howell & Frost, 1989; Kirkpatrick & Locke, 1996;

Sosik, Avolio & Kahai, 1997), there is strong support for promoting this leadership style

in organizations. Identifying predictors of transformational leadership will inform

successful leader selection and development practices that promote this style of

leadership.

These results have practical implications for selection and training. First, in terms of

leadership selection, these results suggest that it may be very important to screen out

amotivated candidates, because amotivation was strongly negatively related to the most

effective form of leadership (transformational) and positively related to the most

ineffective form of leadership (laissez-faire). These results largely support those of

Gilbert et al. (2014).

Further implications concern our finding that all forms of autonomous motivation

including intrinsic motivation were significant positive predictors of transformational

leadership, and that introjected regulation and amotivation were significant negative

predictors. Based on these findings, organizations may also want to select people who

score high on autonomous motivation for transformational leadership. In addition,

organizations may be able to promote autonomous regulation and discourage controlled

motivation and amotivation in order to support effective leadership. Self-determination

theorists ague that degree of internalization is predicted by the satisfaction of

psychological needs, such that higher needs satisfaction promotes higher levels of

internalization (Baard, Deci, & Ryan, 2004; Gagné & Deci, 2005; Ryan & Deci, 2002).

The three needs are: autonomy (having a choice about whether to initiate behaviour based on personal interest and compatibility with personal values), relatedness (feeling connected with others); and competence (having a sense of proficiency; Deci, 1975; Ryan & Deci, 2002). Some evidence suggests that organizations can support self-determined motivation by manipulating the work environment to support the autonomy of employees. Self-determination theorists acknowledge that organizational culture and practices can serve to either support employees' autonomy by promoting choice or to control behavior via external pressures (Deci & Ryan, 1987). For example, an autonomy-supportive social context where the organization provides a meaningful rationale for tasks, offers choice to leaders in decision-making, and acknowledges the feelings of the leader may promote higher levels of internalization (Deci *et al*., 1994). Organizations may be able to implement autonomy support in leadership training and development in order to promote internalization by leaders, and may also use similar strategies in succession planning when candidates are being developed for future leadership positions. Autonomy-supportive activities in these domains may include soliciting and being responsive to leaders' suggestions for policy improvements, relating to leaders' feelings about their roles, and providing relevant information for leaders to do their work well (Deci & Ryan, 2008; Gagné & Deci, 2005).

Limitations

All responses in this study were self-report, presenting a possibility for common method bias, which should be taken into account when interpreting the results. Common method bias is the potential for inflation of the correlations due to collecting all data from the same source. This bias can be reduced in future research by collecting data from

various sources or by conducting a longitudinal study design. A final limitation involves

the skewed distribution of the Motivation for Transformational Leadership subscales, as

very few participants reported amotivation or external regulation and the majority

reported intrinsic and/or more autonomous regulation. The nature of the study population

may explain the pattern of the data, as it is comprised of individuals who are more likely

to have a "calling" to their work and/or officership in a non-profit Christian organization.

As such, they are more likely to be autonomously motivated and amotivation and external

regulation may not matter as much in predicting effective leadership, reflecting range

restriction in the sample. The nature of this data will reduce the generalizeability of the

results to populations with more normally distributed responses. The primarily cross-

sectional nature of this data also precludes any causal conclusions, and future studies

should examine the hypothesized relationships using longitudinal data.

  There is potential for the comparisons made between motivation to lead and

motivation for transformational leadership in Study One to have been an unfair

comparison. Cooper and Richardson (1986) argued that when two theories are compared,

one theory may be operationalized more strongly in the research than the other, which

may lead to the potentially incorrect conclusion that one theory is stronger than the other.

Motivation for transformational leadership may predict transformational leadership more

strongly than motivation to lead because participants are presented with a definition of

transformational leadership prior to responding to the items in this measure. Future

research should address this potential and use some of the strategies recommended by

Cooper and Richardson (1986) to make comparisons fairer.

Conclusion

Despite the limitations of this study, the findings contribute to the knowledge of a new theory of leader motivation and help to establish the validity and reliability of the motivation for transformational leadership scale. The findings suggest that motivation is related to leadership style, and specifically, high levels of autonomous and intrinsic motivation and low levels of controlled regulation and amotivation are related to transformational leadership. With these study goals accomplished, Study Two builds upon its findings by examining the stability of leader motivation over time.

Study Two

Study One established the validity and stability of the motivation for transformational leadership construct and its construct stability over time. Study Two extends these findings to further understand the nature of this construct, particularly whether it changes over time. According to Singer and Willett (2003), there are two main questions that researchers can ask about change in a variable: "1) How does the outcome change over time? And 2) Can we predict differences in these changes?" (p. 7). Study Two addresses the first question, namely to discover whether motivation for transformational leadership changes over time, and if so, how does it change? When exploring a new construct, Ployhart and Vandenburg (2010) argued that it is necessary to first understand the descriptive nature of the construct before attempting to explain change in that construct. Kelloway and Francis (2012) agreed with this assertion, and added that there are many constructs in the field of occupational health psychology for which we do not understand the trajectory of change due to a lack of descriptive

longitudinal studies. As such, it is critical in the development of a new construct to

examine the nature of change in order to guide future research aimed at predicting that

change. The purpose of Study Two is to look at the nature of motivation for

transformational leadership over time.

Study Two seeks to answer the question of whether the construct is a state or trait.

Does it remain stable within individuals (e.g., a horizontal line) or can it change over time

(e.g., a linear or non-linear relationship)? If it can change, is change consistent over time,

or does it fluctuate? Does initial level of motivation affect subsequent change in

motivation? To address these types of questions, Kelloway and Francis (2012) advocate

for the utility of measuring a single outcome at three or more time points and conducting

univariate analyses using growth curve analysis or other longitudinal methods to examine

change. These types of studies are valuable in that they can examine each individual's

growth trajectory, specifically looking at the magnitude, pattern (linear or non-linear), and

direction of change (Ployhart et al., 2010; Singer & Willett, 2003; Preacher, Wichman,

MacCallum, & Briggs, 2008), which will contribute to our understanding of the nature of

the construct.

Study Two is a true longitudinal study, in that it measures motivation for

transformational leadership at three time points. Although previous studies have

attempted to address change using two waves of data, two-wave designs are unable to

examine the nature or processes of change over time, such that we can only look at linear

relationships with two-wave data (Kelloway & Francis, 2012; Singer & Willett, 2003).

Two-wave studies can also confound measurement error with actual change (Singer &

Willett, 2003; Ployhart & Vandenberg, 2010). As such, only studies with three or more

waves of measurement should be considered longitudinal (Singer & Willett, 2003; Ployhart & Vandenberg, 2010; Kelloway & Francis 2012; Kelloway, 2014). Three-wave data enhances statistical power, and allows for analysis that can't be done with two-wave data, such as latent growth curve modeling that requires at least three time points of data (Kelloway, 2014; Preacher, Wichman, MacCallum, & Briggs, 2008) and. Latent growth curve modeling is used in Study Two.

Research on Change in Motivation

Turner and Patrick (2008) argued that motivation researchers should focus more on development and change in motivation, and that it is imperative that research look at how motivation changes in response to context. Kinderman and Valsiner (1995) argued that motivation research should seek to understand the "processes of individuals' adaptation to changing contexts, . . . processes of context adaptation to changing individuals, and [to] individuals' potential to instigate and shape the development of their contexts, as well as [to] contexts' potential to instigate and shape the developmental pathways of individuals." (p. 230) In other words, how does the work context influence motivation and how does individuals' level of motivation influence the context? In motivation research, employees are often asked to describe their beliefs about why they should exert effort across many situations or occasions, such as "at work". As Turner and Patrick (2008) note, this practice implies that there is constancy across how an individual experiences work, or that such differences are inconsequential. As Singer and Willet (2003) note, "change is pervasive in everyday life" (p. 1). Change is constant, and inevitable, especially in today's dynamic and complex global organizations, such as The Salvation Army, where leaders deal with near constant change. This study addresses the

question of whether leaders experience their work differently or the same across three

time periods.

An implicit assumption of self-determination theory is that level of motivation, or

degree of internalization, can change over time (Deci & Ryan, 1987; Ryan & Deci, 2000).

Some self-determination theorists argue that level of internalization is predicted by the

degree to which psychological needs are met, such that the satisfaction of these needs

promotes higher levels of internalization (Baard, Deci, & Ryan, 2004; Gagné & Deci,

2005; Ryan & Deci, 2002). The three fundamental needs include autonomy (having a

choice about whether to initiate behaviour based on personal interest and compatibility

with personal values), relatedness (feeling connected with others), and competence

(having a sense of proficiency; Deci, 1975; Ryan & Deci, 2002). Satisfaction of all three

needs has been positively related to more highly internalized motivation as well as other

positive performance and attitude outcomes (Baard, Deci, & Ryan, 2004; Gagné & Deci,

2005; Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010); This concept is

the basis of proposed interventions aimed at promoting more autonomous motivation. For

example, Baard (2002) suggests that making the organizational context more supportive

of autonomy can satisfy need for autonomy and promote higher internalization at work.

Research supports the effectiveness of psychological needs satisfaction in promoting

self-determined behavior. Autonomy support has been related to greater autonomous

motivation for smoking cessation and, in turn, more successful smoking cessation

(Williams et al., 2006), higher internalization of academic goals in school children and

better self- and teacher-rated motivation (Grolnick & Ryan, 1989), and greater

autonomous motivation for weight loss and better success with maintaining weight loss in

a healthcare setting (Williams et al., 1996). The above evidence suggests that motivation

can change when efforts are made to promote the psychological needs of individuals.

Study Two explores whether there is natural change in motivation for

transformational leadership over time that coincides with natural changes within the

organizational context. In order to look at natural change in motivation for

transformational leadership, it is important that the phenomenon is not examined during a

time of organizational change. As such, this study does not examine the effects of

interventions aimed at promoting higher levels of internalization nor does it coincide with

organizational change initiatives in The Salvation Army. However, although the

organizational context as a whole may not be changing, each leader is expected to have

natural variations in their work roles and workload over the course of the study, which

may influence their motivation for transformational leadership. For example, officers and

lay leaders are affected by moves that are announced in May and take place in August

each year. The officers included in this survey would not have had a change in

appointment during the time of study, as moves are announced in May/June. However,

half of the leaders in the current sample were relatively new to their current appointment

and reported in a demographic question in this study that their recent appointment change

affected themselves and their families to a large extent. Further, leaders in the Salvation

Army experience seasonal variation in their workload. For example, the Christmas season

is an incredibly busy time where leaders experience extreme demands on their time (more

than typical changes/fluctuations in seasons). Christmas preparations begin in October,

with the Christmas kettle and Red Shield campaigns, and self-denial campaign around

Easter. With these natural fluctuations in leader responsibilities and workload may come

fluctuations in motivation as well. Thus, the purpose of this study is to explore the nature

of the construct of motivation for transformational leadership, and specifically its natural

development or change over time.

Method

Participants

      This study includes 58 leaders who were surveyed across three time points.

Participants included a total of 58 leaders including 48 officer leaders and 8 layperson

leaders (2 unidentified), 36 males and 20 females (2 unknown). Leaders' ages ranged

from 32 to 63 with a mean age of 53.05. Organizational tenure ranged from 5 years to 41

years, with a mean tenure of 23.16. Most participants had a graduate degree (38.2%) as

their highest level of education, while the remainder had high school (21.8%), diploma

(23.6%), or undergraduate degree educations (16.4%). All ten divisions (including

Territorial Headquarters) were represented in the sample, with the majority of participants

working in the Ontario Central East division (19.6%). See Table 7 for demographic

characteristics. Of these leaders, 22 (54%) were new to their current appointment within

the past three years and 22 were in their current role for 4 years or longer. The majority of

leaders (47.9%) reported that their most recent change in appointment impacted

themselves and their families "to a large extent."

      Attrition effects over time were assessed by looking for significant differences in

motivation for transformational leadership between the group of participants who

responded at all three time points and those who responded only at Time 1. There was no

significant MANOVA effect (Pillai's Trace = .04, $F(6, 267) = 1.82$, $p > .05$). There were

also no significant differences between the two groups on any of the demographic

variables.

Differences were examined between officer and layperson leaders on all study

variables at time one. There was a significant MANOVA effect (Pillai's Trace = .52, F(6,

48) = 8.62, p < .001), and this effect is due to a significant difference in external

regulation, whereby layperson leaders (M = 4.79, SD = 2.03) score higher than officers

(M = 1.99, SD = .94; F(1, 53) = 40.75, p < .001). There were no significant differences on

any of the other types of motivation.

Design and Procedure

All officers and lay-people that were in a leadership role in the Canada and

Bermuda territory were contacted by email for this study. A total of 917 organizational

leaders within The Salvation Army who had at least one subordinate were surveyed three

times over the course of a seven month period. Measures were taken 3-4 months apart:

Time 1 - October 2012, Time 2- February 2013, and Time 3- May 2013. Participants

completed the Motivation for Transformational Leadership Scale (Gilbert et al., 2014)

described above and demographic information such as age, gender, tenure, and job title.

Analysis

Latent growth curve modeling using a structural equation modeling approach was

conducted using Mplus v 7.0 to examine changes in the latent growth curve of motivation

for transformational leadership over the three time points. This type of analysis can

describe the stability or change in a construct over time by examining the latent trajectory

of change at the individual level (Tisak & Tisak, 2000). Latent growth curve modeling is

a special case of structural equation modeling, which allows the researcher to test for

mean change over time by evaluating model fit while also accounting for measurement

error and dealing effectively with missing data (Preacher, Wichman, MacCallum, &

Briggs, 2008).

Latent growth curve modeling is an application of confirmatory factor analysis,

but where the loadings of the observed variables on the latent variables are fixed in order

to estimate the slope and variance parameters instead (Kelloway, 2014). Models where

one construct is measured at multiple time points are called first-order latent growth curve

models (FGM; e.g., Hancock, Kuo, & Lawrence, 2001). In FGM, the linear model is

represented by an intercept, slope and error variance, where the intercept is the initial

status of the observed variable and slope is the rate of linear change over time (Geiser,

Keller, & Lockhart, 2013). Path loadings can be changed to estimate different growth

patterns, if necessary, where a linear growth model is set at equal intervals (e.g., 0, 1, and

2) and a quadratic curve is set to the square of the linear path values (e.g., 0, 1, and 4).

Latent growth curve modeling estimates two latent variables: the intercept

(represents the starting value) and the slope (represents rate of change over time). For

each of these variables, a mean and variance is obtained. The mean intercept tells us the

mean starting score, and the intercept variance tells us whether individuals start at

different levels. The mean slope explains whether there has been change in the sample

(change occurs if significant) as well as the average rate of change in the sample. The

slope variance explains whether rate of change differs across individuals (Kelloway,

2014). To estimate a linear pattern of change, the slope parameters were fixed to 0, 1, and

2 for each measurement period. In the event that a linear model does not fit, but a

quadratic model does fit the data better, I tested both linear and quadratic models for all types of motivation and amotivation. A quadratic model was estimated by fixing the slope parameters to 0, 1, and 4. It was unnecessary to estimate the loadings for the intercepts, because the program fixes the intercepts to one to indicate lack of change over time.

Goodness of fit of the model to the data was assessed using the chi square test of model fit and root mean square error of approximation (RMSEA; Hu & Bentler, 1999), and comparative fit index (CFI; Bentler, 1990). Criteria for a good fit was an RMSEA smaller than .10 for a good fit to the data or smaller than .05 for a very good fit (Steger, 1990), with a non significant *p*close and 90% confidence intervals that do not include zero. The *p*close statistic provides a test of significance regarding whether the value is significantly different from .05, such that a significant *p*close test suggests that the RMSEA value is significantly different from .05 (Kelloway, 2015). In addition, the comparative fit index (CFI) should be greater or equal to 0.95 (Hu & Bentler, 1999) as per the criteria discussed in Study One.

There are few guidelines for sample size recommendations for multilevel data. However, Mathieu et al. (2012) found that the median level two sample size in 79 multilevel investigations published in the Journal of Applied Psychology between 2000 and 2010 was 51. This compares favourably to the level two sample of 58 reported here, especially given the level one follower sample size of 174.

Results

Study intercorrelations, means and standard deviations are presented in Table 7. The fit of the model for amotivation showed an excellent fit to data ($\chi^2_{(1, N = 57)} = .04$, $p = 0.85$; CFI = 1.00, RMSEA = 0.00, *p*close = 0.86, 90% C.I. = . 0.00 - 0.12). The sample starting

score was significant ($M = 1.43$, $p < .001$) but the slope mean representing rate of change

in amotivation non-significant ($M = -.011$, $p > .05$), suggesting that there is no significant

change in amotivation over time. A non-significant correlation between the intercept and

the slope ($r = -.022$, $p > .05$) suggests that there is no relationship between initial

amotivation scores and subsequent rate of change over time. The significant intercept

variance ($s^2 = .28$, $p < .05$) and non-significant slope variance ($s^2 = .00$, $p > .05$) suggest

that participants started at significantly different scores but did not change at significantly

different rates.

Table 7. Intercorrelations with means, standard deviations, and internal consistency values for scales and subscales (N = 58).

Variable	Mean (SD)	Intercorrelations											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Amotivated T1	1.42(.64)	(.87)											
2. Amotivated T2	1.43(.61)	.67†	(.67)										
3. Amotivated T3	1.40 (.65)	.60†	.57†	(.92)									
4. External T1	2.40(1.51)	.25	.17	.21	(.83)								
5. External T2	2.48(1.51)	.36†	.27*	.30*	.85†	(.92)							
6. External T3	2.33(1.33)	.26*	.16	.25	.78†	.85†	(.88)						
7. Introjected T1	4.01(1.56)	.15	.22	.04	.31*	.24	.25	(.82)					
8. Introjected T2	3.90(1.53)	.08	.18	.10	.38†	.34†	.36†	.77†	(.85)				
9. Introjected T3	4.26(1.59)	-.07	.03	-.04	.30*	.30*	.31*	.72†	.76†	(.89)			
10. Identified T1	6.37(.60)	-.63†	-.47†	-.54†	-.23	-.23	-.28*	.11	-.01	.13	(.77)		
11. Identified T2	6.33(.56)	-.66†	-.55†	-.62†	-.09	-.22	-.15	.12	.12	.20	.62†	(.77)	
12. Identified T3	6.26(.73)	-.58†	-.49†	-.71†	-.16	-.13	-.20	.10	.06	.23	.70†	.72†	(.83)
13. Integrated T1	4.51(1.21)	-.23	-.20	-.35†	.01	.14	.06	.06	.14	.14	.42†	.40†	.39†
14. Integrated T2	4.52(1.11)	-.35†	-.25	-.41†	-.03	.06	.02	-.02	.12	.13	.39†	.40†	.42†
15. Integrated T3	4.51 (1.29)	-.18	-.12	-.26*	.03	.18	.10	-.06	.06	.04	.25	.31*	.28*
16. Intrinsic T1	5.89(.73)	-.32*	-.11	-.36†	-.19	-.14	-.09	-.06	-.10	.02	.47†	.50†	.46†
17. Intrinsic T2	5.70(.83)	-.49†	-.32*	-.48†	-.34*	-.28*	-.27*	-.09	-.14	-.03	.68†	.61†	.62†
18. Intrinsic T3	5.72(.77)	-.33†	-.13	-.51†	-.13	-.11	-.10	.00	-.05	.00	.48†	.48†	.48†

Notes. $* = p < .05.$ † < .01; Coefficient alphas (α) are on the diagonal in parentheses

Table 7.
Continued

	Intercorrelations				
	13	14	15	16	17
13. Integrated T1	(.89)				
14. Integrated T2	.84†	(.78)			
15. Integrated T3	.84†	.80†	(.91)		
16. Intrinsic T1	.41†	.40†	.26	(.87)	
17. Intrinsic T2	.54†	.47†	.33*	.71†	(.78)
18. Intrinsic T3	.41†	.45†	.37†	.57†	.62†	(.78)

Notes. $* = p < .05$. $† < .01$; Coefficient alphas (α) are on the diagonal in parentheses

Since the linear model was non-significant for amotivation, I tested a quadratic curve to determine whether it would result in a better fit. I fixed the slope loadings to 0, 1, and 4 (the square of the linear curve loading values). The quadratic growth model for amotivation did fit better than the linear growth model ($\chi^2_{(1, N = 57)} = .01$, $p = 0.92$; CFI = 1.00, RMSEA = 0.00, $p$close = 0.93, 90% C.I. = . 0.00 - 0.12). The intercept value was still significant (M = 1.430, p < .001), and there was no significant change in slope (M = -.01, p > .05), and no relationship between initial amotivation score and subsequent change in amotivation ($r = -.01$, $p > .05$). The intercept variance was significant ($s^2 = .27$, $p < .05$) and slope variance was non-significant ($s^2 = .00$, $p > .05$).

The fit of the linear model for external regulation was also an excellent fit to data ($\chi^2_{(1, N = 58)} = 1.25$, $p = 0.26$; CFI = 1.00, RMSEA = 0.07, $p$close = 0.20, 90% C.I. = 0.00 - 0.36). The intercept mean was significantly different from zero ($M = 2.44$, $p < .001$). A non-significant slope mean ($M = -.06$, $p > .05$) suggested no change in external regulation over time. The starting value and slope of external regulation correlated significantly ($r = -.39$, $p < .05$) such that the higher the initial external score, the less participants changed in external regulation over time. The intercept variance was positive and significant ($s^2 = $

2.34, $p < .001$) as was the slope variance ($s^2 = .26$, $p < .05$), suggesting that participants'

initial scores varied significantly and that they changed at different rates.

The quadratic growth model for external regulation was an even better fit ($\chi^2_{(1, N = 58)} =$

0.56, $p = 0.45$; CFI = 1.00, RMSEA = 0.00, $p$close = 0.49, 90% C.I. = 0.00 - 0.31). The

intercept mean was significantly different from zero ($M = 2.47$, $p < .001$). A non-

significant slope mean ($M = -.04$, $p > .05$) suggested no change in external regulation over

time. The starting value and slope of external regulation correlated significantly ($r = -.13$,

$p < .05$) such that the higher the initial external score, the less participants changed in

external regulation over time. The intercept variance was positive and significant ($s^2 =$

2.34, $p < .001$), however, the slope variance is no longer significant in this model ($s^2 =$

.06, $p > .05$) suggesting that participants do not change at significantly different rates.

The model for introjected regulation was an excellent fit ($\chi^2_{(1, N = 58)} = 4.04$, $p < .05$;

CFI = .97, RMSEA = 0.23, $p$close = 0.06, 90% C.I. = 0.03 - 0.48). The intercept mean

significantly differed from zero ($M = 3.93$, $p < .001$), and a non-significant slope mean (M

$= .12$, $p > .05$) suggests that there was no significant change over time in introjected

regulation. The slope and intercept did not correlate ($r = -.03$, $p > .05$) suggesting that

initial introjected scores were unrelated to subsequent change. The intercept variance was

significant ($s^2 = 1.80$, $p < .001$), but the slope variance was not ($s^2 = .05$, $p > .05$)

suggesting that there was significant variance in initial level of introjection, but that

participants did not change at different rates.

The quadratic model for introjected was an even better fit ($\chi^2_{(1, N = 58)} = 2.00$, $p = 0.16$;

CFI = .99, RMSEA = 0.13, $p$close = 0.19, 90% C.I. = 0.00 - 0.40). In this model, the

intercept mean was also significant (M = 3.92, $p < .001$) and initial scores were again

unrelated to subsequent change ($r = -.01$, $p > .05$). The slope mean was significant (M =

.08, p < .05), suggesting that there was a significant increase in non-linear change over

time. Paired t-tests showed that participants' scores did not significantly change from

time one to time two (t(56) = .67, p > .05), but significantly increased from Time 2 to

Time 3 (t(57) = -2.57, p < .05; Figure 3 shows the mean change over time). As in the

linear model, the intercept variance was significant (s^2 = 1.79, $p < .001$), but the slope

variance was not (s^2 = .02, $p > .05$).

The model for identified regulation had an excellent fit ($\chi^2_{(1, N = 58)}$ = .09, $p = 0.76$; CFI

= 1.00, RMSEA = 0.00, $p$close = 0.78, 90% C.I. = 0.00 - 0.24). The intercept mean was

significantly different from zero ($M = 6.38$, $p < .001$), but the slope mean was non

significant (M = -.05, p > .05) suggesting no significant change over time. The slope and

intercept were correlated ($r = .10$, $p < .05$) such that the higher the initial value of

identified regulation, the more leaders changed over time. The intercept variance was non

significant (s^2 =.11, $p > .05$), as was the slope variance (s^2 = -.05, $p > .05$) suggesting that

leaders did not differ in initial values of identified regulation, nor did they change at

different rates over time.

The quadratic growth model for identified regulation had an even better fit ($\chi^2_{(1, N = 58)}$

= .02, $p = 0.88$; CFI = 1.00, RMSEA = 0.000, $p$close = 0.89, 90% C.I. = 0.00 - 0.17). The

intercept mean was significantly different from zero ($M = 6.36$, $p < .001$), but the slope

mean was non-significant (M = -.02, p > .05) suggesting no significant change over time.

The slope and intercept were correlated ($r = .03$, $p < .05$) such that the higher the initial

value of identified regulation, the more leaders changed over time. In this model the

intercept variance was significant (s^2 = .17, $p < .01$), suggesting that leaders did differ in

their initial values of identified regulation. The slope variance was non-significant (s^2 = -

.01, $p > .05$).

The model for integrated regulation was also an excellent fit to the data ($\chi^2_{(1, N = 58)}$ =

.04, $p = 0.83$; CFI = 1.00, RMSEA = 0.00, $p$close = 0.84, 90% C.I. = 0.00 - 0.20). The

intercept mean was significantly different from zero ($M = 4.52$, $p < .001$), but the slope

mean was non-significant ($M = .00$, $p > .05$), suggesting no significant change over time.

The correlation between the slope and intercept was not significant ($r = .18$, $p > .05$),

suggesting that the intercept was unrelated to subsequent change over time. The intercept

variance was significant ($s^2 = .93$, $p < .001$) suggesting that participants' initial levels of

integrated regulation varied significantly and the slope variance was non significant (s^2 =

-.17, $p > .05$), suggesting that they changed at similar rates. The quadratic curve was not a

better fit than the linear curve ($\chi^2_{(1)} = .04$, $p = 0.83$; CFI = 1.00, RMSEA = 0.00, $p$close =

0.83, 90% C.I. = 0.00 - 0.20), suggesting that the linear model best represents the

trajectory of change for integrated regulation.

Finally, the linear model for intrinsic motivation also showed an excellent fit to data

($\chi^2_{(1, N = 58)} = 2.29$, $p = 0.13$; CFI = .98, RMSEA = 0.15, $p$close = 0.16, 90% C.I. = 0.00 -

0.41). There was a significant intercept mean ($M = 5.88$, $p < .001$) and slope mean (M = -

.09, $p < .05$) such that there has been negative change at the group level over time. The

slope and intercept were uncorrelated ($r = -.11$, $p > .05$). There was a significant intercept

variance ($s^2 = .56$, $p < .001$) such that participants started at different levels of intrinsic

motivation, but a non-significant slope variance ($s^2 = .08$, $p > .05$) suggesting that

participants did not change at different rates over time. Quadratic curves were used to

compare the fit. This model did not fit better than the linear model for intrinsic motivation

$(\chi^2_{(1, N = 58)} = 4.20, p = 0.04$; CFI $= .95$, TLI $= .86$, RMSEA $= 0.23$, $p$close $= 0.16$, 90%

C.I. $= 0.04 - 0.48$). These results support the linear model as most representative of the

trajectory of change in intrinsic motivation. The linear growth model results are presented

in Table 8 for all five forms of motivation.
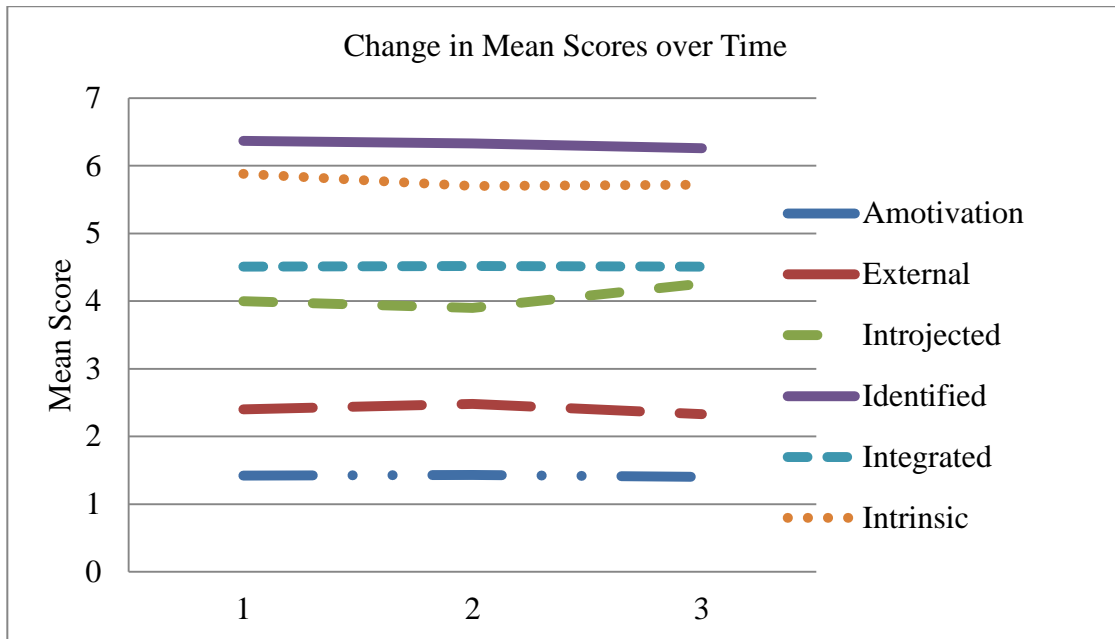
Figure 3. *Change in mean motivation for transformational leadership scores over three time points.*

Table 8. *Linear growth model results.*

Variable			Estimate	SE	T-Value	χ^2	df	P value	CFI	TLI	RMSEA
Amotivation						.037	1	.847	1.00	1.046	.000
	Means	Intercept	1.430	.082	17.394*						
		Slope	-.011	.038	-.279						
	Variances	Intercept	.277	.091	3.033†						
		Slope	-.002	.040	-.054						
External						1.254	1	.263	.998	.995	.066
	Means	Intercept	2.438	.202	12.091†						
		Slope	-.055	.064	-.858						
	Variances	Intercept	2.337	.512	4.563†						
		Slope	.257	.124	2.076*						
Introjected						4.038	1	.045	.970	.911	.229
	Means	Intercept	3.926	.205	19.104†						
		Slope	.125	.080	1.559						
	Variances	Intercept	1.805	.504	3.579†						
		Slope	.048	.200	.242						
Identified						.093	1	.760	1.00	1.03	.000
	Means	Intercept	6.379	.069	92.927†						
		Slope	-.052	.035	-1.499						
	Variances	Intercept	.108	.062	1.740						
		Slope	-.053	.040	-1.330						
Integrated						.044	1	.833	1.00	1.020	.000
	Means	Intercept	4.517	.149	30.378†						
		Slope	.002	.046	.033						
	Variances	Intercept	.932	.254	3.667†						
		Slope	-.175	.107	-1.629						
Intrinsic						2.287	1	.130	.982	.945	.149
	Means	Intercept	5.882	.101	58.036†						
		Slope	-.091	.047	-1.965*						
	Variances	Intercept	.557	.153	3.645†						
		Slope	.085	.055	1.532						

* = $p < .05$. † $< .01$

Discussion

This study provided a preliminary understanding of the nature of motivation for transformational leadership over a short period of time. The results suggest that amotivation, external, identified, and integrated forms of regulation are stable over a seven-month time period whereas intrinsic motivation decreased and introjected regulation showed non-linear change over time. There are some theoretical and methodological implications for future research if I'm not seeing change over a seven-month period for some forms of regulation. Theoretically, this research suggests that extrinsic forms of leader motivation and amotivation may be more resistant to change over a short time period. Methodologically, this study provides some guidance for future research in terms of the measurement spacing and length of longitudinal studies of motivation. The null results may be an artifact of the spacing between measurements, such that three months between measurements may not be sufficient time to detect change. The overall stability in the construct may be due to stability in the working environment. Perhaps there were no changes in the work environment that would precipitate change in motivation since measurements were obtained only 3-4 months apart and over the course of 7 months. I found only one study examining natural change in self-determined motivation, which found that academic intrinsic motivation decreased over time in children between ages 9 to 17 years (Gottfried et al., 2001). These findings together suggest that intrinsic motivation may be subject to change based on situational factors. Future research should address whether measurements obtained further apart or closer together would detect change and examine samples in different industries and organizational contexts.

A key finding of this study is that intrinsic motivation decreased while most other forms of motivation remained stable. Also, introjected regulation showed quadratic growth, with stability between times one and two and a significant increase in scores from time two to time three. Given the low power in this study, these significant effects may actually be quite substantial. The changes in intrinsic motivation and introjected regulation may be related such that intrinsic motivation is replaced by introjected regulation, where leaders are now motivated more out of sense of duty or to avoid feelings of guilt rather than by inherent interest.

There are several potential explanations for these changes. First, the results could potentially be due to the nature of the sample consisting of religious leaders who feel called by God to their roles. Salvation Army leaders may be drawn to leadership roles in the organization due to high levels of intrinsic motivation to be effective in those roles. They may initially find the work as an officer or lay leader to be extremely fulfilling, enjoyable, and interesting. However, over time, intrinsic motivation may decrease due to contextual factors in the organization that influence psychological need satisfaction. Satisfaction of the basic psychological needs for autonomy, competence, and relatedness have been linked to greater autonomous motivation (Gagné et al., 2010; Van den Broeck et el., 2011). For example, pressure to attain imposed goals reduces feelings of autonomy and is likely to result in decreased intrinsic motivation and greater external locus of causality (Deci & Ryan, 1985; Ryan & Deci, 2000). Perhaps if the organization is not supportive of needs satisfaction, then intrinsic motivation will decrease over time, and introjected regulation will increase.

A second explanation may be that intrinsic motivation waxes and wanes over the course of the year, showing higher levels in the fall and lower levels just prior to the summer, when my final measurement was taken. At this point in the year, officers are usually looking forward to taking summer furlough after a busy Christmas and Easter holiday season. Longer longitudinal studies will be necessary to determine if motivation shows a cyclical pattern, with higher levels at certain times of the year and lower levels at others. Some research suggests that a period of recovery, such as a vacation, allows employees to rebuild resources and reduce strain and burnout, allowing employees to return to work with greater energy and motivation (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Stevens, 2010; Westman & Etzion, 2001). As such, Salvation Army leaders may experience lower levels of autonomous motivation at times of the year when there have greater job demands and higher levels of autonomous motivation following a vacation or furlough, when they can "top up" their motivation.

A third explanation may relate to financial compensation within the organization. First, many Salvation Army leaders are lifelong members of the organization and have previously volunteered in similar work prior to becoming employees or leaders. Being paid for work may undermine intrinsic motivation such that, once a member of The Salvation Army becomes an employee in the organization and is now paid for similar work he or she may have done on a volunteer basis in the past, he or she may derive less pleasure from that work. Previous research has found that receiving tangible rewards does undermine intrinsic motivation for a task (Deci, 1975; Deci, Koestner, & Ryan, 1999). Second, some authors have argued that higher base pay contributes more to psychological needs satisfaction through greater perceptions of distributive justice and recognition of

high competency by the organization, which in turn promotes greater intrinsic motivation

(Gagné & Forest, 2008; Kuvaas, 2006). The low level of base pay that Salvation Army

leaders, particularly officers, receive may undermine intrinsic motivation. As such,

intrinsic motivation may be especially hard to maintain within The Salvation Army

setting, which may have implications for the organization in that it may need to explicitly

support or maintain intrinsic motivation using strategies besides improving base pay such

as providing autonomy support.

There was some evidence that initial levels of both external and identified

regulation influenced subsequent change in the construct, such that the higher the initial

level of external regulation, the less leaders changed over time in this level of

internalization and the higher leaders were initially on identified regulation, the more they

changed over time. The correlation was small and positive for identified and large and

negative for external such that if leaders initially scored high on external regulation, then

these leaders were likely to stay high. Perhaps those who are highly externally motivated

will be unlikely to become more autonomously motivated over time. It is plausible that

these leaders may be more resistant to change. Or maybe it's just harder for someone who

is externally regulated to become autonomously regulated at all. If leaders initially scored

high on identified regulation, then these leaders were more likely to change, and

specifically decrease over time. Identified regulation may be showing regression to the

mean, where if a leader scores high initially, they are unlikely to be able to move

anywhere but down. The model for external regulation also showed significant slope

variance, so the leaders changed at different rates, suggesting that this level of

internalization is represented by a more individualized trajectory of change.

This study responds to a problem highlighted by Kelloway and Francis (2012) wherein there is a lack of descriptive longitudinal research in Occupational Health Psychology, such that we have little understanding of the nature of the phenomena we study in the field. In developing this new construct of motivation for transformational leadership, this study has contributed to our understanding of the nature of change in this construct and provides support for the stability of most extrinsic forms of motivation and amotivation.

Implications

The results have implications for organizations in the selection and development of leaders. If motivation for transformational leadership is stable within individuals, then there are implications for leader selection. In order to have autonomously regulated leaders who exhibit effective leadership behaviours, it will become more important to screen out leaders who are high on amotivation or controlled regulation and to select leaders who score high on autonomous/intrinsic motivation for transformational leadership.

Little is known about assessing leader motivation as part of leader selection practices, but if leaders' own motivation does predict leader effectiveness (which will be examined in Study Three), then this measure has promise for selecting candidates with the potential to be more effective. Further, there are implications for organizations to try to promote or maintain intrinsic motivation, as this was the only level of motivation for transformational leadership that showed evidence of significant change over time aside from introjected. What can organizations do if intrinsic motivation is decreasing, or initial levels are low in employees? The answers to these questions have implications for

leadership culture and training and development as well as selection. Perhaps leadership

development programs can promote more autonomous regulation, which we have seen in

previous studies above is predictive of transformational leadership behavior.

Limitations

Several limitations should be considered when interpreting the results of this

study. First, the small sample size limits the stability of the results, even though the

sample size was comparable to that of other multi-level studies in the social sciences

(Mathieu et al., 2012). The lack of change detected could be a result of lack of power due

to low sample size. However, the absolute magnitude of the effects suggests that even

with a larger sample size, there still may be no significant change. The effect sizes are so

small that the outcome is unlikely to be simply a result of low power, and it is likely that

they will remain small with higher power. The implications of this finding are that most

non-intrinsic forms of motivation (aside from introjected) are likely to remain stable over

time, even when studied in larger samples. However, due to the small sample size and

lack of generalizeability, the effects of change in all forms of motivation for

transformational leadership should still be replicated in future research using larger and

more diverse samples.

Second, motivation for transformational leadership was measured at only three

time points, which were only seven months apart. Some researchers recommend at least

four or five waves of data to model latent growth curves, depending on the complexity of

the model (Stoolmiller, 1995; MacCallum, Kim, Malarkey, & Kiecolt-Glaser, 1997;

Hertzog, Lindenberger, Ghisletta, & von Oertzen, 2006); however, others suggest that

three measurements are sufficient for modeling longitudinal change over time (Kelloway

& Francis, 2012; Ployhart & Vandenberg, 2010; Singer & Willett, 2003). My models

were simple descriptive linear and quadratic curves that included no predictors, so

three waves was probably sufficient for linear and non-linear growth curve modeling,

although future studies should examine change over more than three time points.

Because there is no real guidance in the literature regarding the ideal lag times

between measurements or the time frames for detecting change, the measurement time

points in this study were selected based on the highest likelihood of response by the

leaders. In particular, I chose time points that would be the least busy times for

Salvation Army leaders, and avoided busy times such as September, Christmas or

Easter. This practice served to minimize attrition, one of the biggest pitfalls of

longitudinal research. However, I still ended up with a small sample size of only 58

leaders despite my original sample of over 900 leaders. This small sample size limited

my power to detect significant effects (Maas & Hox, 2005).

A further limitation is that this study included 48 officer leaders and only 8

layperson leaders (2 unidentified). The sample was too small for me to be able to compare

growth curves between the two groups, but I did conduct a MANOVA comparing the two

groups on all study variables at time one. Lay leaders did have higher external regulation

than officers, although I did not find any significant differences on any of the other

variables. Officers may have lower external regulation due to their commitment to the

organization despite the challenges involved in their work. Officers often have lower base

salaries than lay leaders and their work is more of a lifestyle rather than a 9-5 job.

Because of these differences between the two groups of leaders, the officer group may be

restricted in range on external regulation and the results from this study may not be

generalizeable to a more heterogeneous group of workers. Future research should

examine the stability of motivation for transformational leadership in different leader

roles and organizational contexts.

This study spanned the course of seven months, so the context itself may be

relatively stable within this time period, making it hard to see change. Change in

motivation for transformational leadership may occur over a longer time period, or within

a time period where organizational change occurs. Future research should further examine

change in motivation for transformational leadership within a changing context. Kelloway

and Francis (2012) argued that there is little basis for deciding how long of a period of

time qualifies as longitudinal research, but that it is likely longer than a year.

Future research

This study provides only preliminary evidence of the trajectory of change of

motivation for transformational leadership. Now that there is evidence that intrinsic

motivation does change over time, future research can build on these results to examine

potential predictors of that change. Before research can examine what predicts change in

other types of motivation, first, we need to know whether non-intrinsic forms of

motivation do change. The findings from this study may guide future research in

designing more powerful research designs, which may be more effective at detecting

change by building on the limitations of this study. Specifically, allowing longer time

frame for research may result in detecting change over a longer period of time, perhaps by

studying motivation at yearly intervals for several years. Much more work should be

undertaken into order to more fully understand how and why this construct changes over

time.

Future research should extend these findings by conducting more long-term and

rigorous longitudinal research, which could determine whether motivation for

transformational leadership is state or trait based. Traits are "stable, long-lasting, and

internally caused", whereas states are "temporary, brief, and caused by external

circumstances" (Chaplin, John, & Goldberg, 1988, p. 541). Many researchers argue that

states and traits are not discrete (e.g., Allen & Potkay, 1981) and that demonstrating

stability over time in a construct is not sufficient for distinguishing a state from a trait

(Allen & Potkay, 1981; Fridhandler, 1986). Other criteria for distinguishing a state from a

trait may include cross-situational consistency (Mischel, 1968), and personal versus

situational causation (Speilberger, 1972). Chaplin, John, and Goldberg, (1988) argued

that distinguishing states from traits can take an empirical view (e.g., high test-retest

reliabilities may be indicative of trait) but can also consider an intuitive conceptualization

of the construct. Motivation is intuitively context-based, however, the current measure

does look at context-specific motivation, which may be stable, according to the results of

this study. Future research needs to further establish the stability of motivation for

transformational leadership over time and perhaps also within changing contexts.

Previous SDT research and psychological needs theorists have strongly argued

that motivation can be improved by satisfying the three psychological needs (Deci &

Ryan, 2000; Vansteenkiste, Ryan, & Deci, 2008), and as such, imply that motivation is a

state that changes over time. However, the results of this study suggest that motivation

may tend to be more of a trait construct, or a combination of state/trait, where we have a

certain, stable level of motivation, which perhaps might fluctuate within a range based on

situational factors. Future research should look at whether this might be the case by using

larger samples, longer studies, and include potential predictors of motivation, such as

psychological needs satisfaction.

Based on the results of this study, I recommend more than three measurement

time points that are spread six months to a year apart to determine if there is change

occurring over a longer timeframe. These studies should take into consideration the

stability of the organizational context over the duration of the study. Future research

should also examine the stability of motivation for transformational leadership in the

context of organizational change. What happens to motivation when the organizational

environment is changing? How does leader motivation change in a leadership

development context? Individual and organizational level factors should be assessed in

these studies to determine whether these factors predict change in motivation, or vice

versa. Future research should examine what magnitude of change in intrinsic motivation

predicts performance, well-being, and employee attitude outcomes and also what factors

predict change in intrinsic motivation.

Conclusion

These results support tenets of SDT, which suggest that intrinsic motivation can

be promoted, perhaps through the satisfaction of psychological needs, as has been

proposed by many (e.g., Baard, 2002, Ryan & Deci, 2002 Baard, Deci, & Ryan, 2004;

Gagné & Deci, 2005). Specifically, by promoting an organizational context that supports

autonomy, relatedness, and competence of leaders, these researchers purport that

organizations can promote more internalized regulation. Although this study does not

examine the idea that the satisfaction of these needs specifically can improve intrinsic

motivation, it does support the idea that intrinsic motivation can *change* over time. Future

research needs to examine the predictors of this change, and perhaps examine needs

satisfaction in particular as a potential predictor.

Study Three

Following from Studies One and Two, Study Three addresses the predictive validity

of motivation for transformational leadership and specifically asks whether motivation for

transformational leadership influences perceptions of leader effectiveness. To address

some of the limitations of Studies One and Two, namely that they consisted of only self-

report data, Study Three includes both self- and other-ratings using self-ratings of

motivation for transformational leadership to predict follower ratings of transformational

leadership in two organizations. This study also expands on findings in Study One and by

Gilbert at al. (2014), linking motivation for transformational leadership with leadership

behavior. Some of the findings in these two studies were inconsistent, possibly because of

self-report bias or sample differences. This study will address some of the limitations of

self-reported leadership assessed in the above studies: self-rating bias and limited

generalizeability.

The results from Study One as well as from Gilbert et al.'s (2014) study show

some mixed results regarding the role of motivation in the prediction of leadership. In

Study One, all forms of motivation with the exception of external regulation predicted

transformational leadership. Gilbert et al. (2014) found that transformational leadership

was negatively predicted by amotivation and external regulation and positively predicted

by identified regulation. Contingent reward leadership was positively predicted by

identified regulation in Study One, and by amotivation as well as identified regulation by

Gilbert et al. (2014). Passive management by exception was predicted by external

regulation and intrinsic motivation in Gilbert et al.'s study, and by introjected regulation

in Study One. Active management by exception was predicted by external regulation in

Gilbert et al.'s study and by none of the predictors in the current research. Finally, Gilbert

et al. found that amotivation most strongly predicted laissez-faire leadership, whereas

amotivation and integrated regulation were both significant predictors in the current

research.

The differences in prediction between these two studies may be attributable to

differences between the samples. Whereas Gilbert et al. (2014) included a sample of both

formal and informal leaders across industries; Study One included formal leaders within a

global non-profit organization. Given these differences, context may play an important

role in how level of internalization predicts behavior and may moderate these

relationships. Potential moderators may include amount of financial compensation or

amount of autonomy and control experienced by the leader. Given these concerns, the

current study compares the relationships between motivation for transformational

leadership and perceived leader effectiveness in two contexts: healthcare and non-profit.

Study Three also addresses issues of self-rating bias in previous studies of

motivation for transformational leadership. Some researchers have found evidence for the

unreliability of leaders' self-ratings compared to other-ratings or objective criteria

(Ashford, 1989; Harris & Schaubroeck, 1988; Mabe & West, 1982; Yammarino &

Atwater, 1993). Research comparing leaders' and followers' ratings of the leader's

effectiveness suggests that leaders may have inflated perceptions of their leadership. Bass

and Yammarino (1991) found that, compared to follower ratings, US navy officers rated

themselves more favourably on all forms of transformational leadership, contingent reward, and active management by exception, and rated themselves lower on laissez-faire leadership. Discrepancies ranged from .28 for active management by exception to .94 for contingent reward leadership. Leaders who were evaluated by supervisors as more effective were least likely to inflate their transformational leadership scores compared to subordinates' scores. Yammarino and Atwater (1997) suggested that many factors might influence a discrepancy between the leaders' self-perceptions and the others' perceptions of the leader, including biographical characteristics, individual characteristics, such as cognitive ability, job and organizational context, job relevant experiences, such as past successes or failures, and cognitive processes. Based on previous findings highlighting differences between self- and other-ratings of leadership, there may be different relationships between motivation and subordinate ratings of leadership than between motivation and self-ratings of leadership. Due to the potential discrepancies between self- and other-ratings of leadership, it is important to evaluate leadership from a variety of sources. That is why Study Three examines perceptions of leadership effectiveness by followers as the outcome.

Study Three asks whether motivation for transformational leadership actually makes a difference in perceptions of transformational leadership by followers. If I find that this is the case, then motivation for transformational leadership will likely have implications for follower outcomes. The transformational leadership research strongly supports the benefits of transformational leadership for follower and organizational outcomes. For example, transformational leadership has been linked to greater subordinate job satisfaction (Hater & Bass, 1988; Koh, Steers & Terborg, 1995),

organizational commitment (Barling, Weber, & Kelloway, 1996; Bycio, Hacket, & Allen, 1995; Koh et al., 1995), trust in management (Barling et al., 1996), organizational citizenship behaviors (Koh et al., 1995), psychological well-being (Kelloway, Turner, Barling, & Laughlin, 2012; McKee et al., 2009), as well as organizational-level outcomes such as higher task performance (e.g., Howell & Frost, 1989; Kirkpatrick & Locke, 1996; Sosik, Avolio & Kahai, 1997), unit financial performance (Howell & Avolio, 1993), and group performance and financial performance (Barling et al., 1996). Importantly, Bono and Judge (2003) found that followers of transformational leaders were more likely to set more autonomous goals, to be more affectively committed to their organization, and to have higher job satisfaction. Gagné and Deci (2005) argued that transformational leaders promote basic psychological needs satisfaction, and particularly support followers' autonomy, which may contribute to these positive outcomes. If motivation for transformational leadership can predict transformational leadership, then it may also predict employee and organizational outcomes that we know are related to transformational leadership.

The purpose of this study was to examine whether leaders' motivation (level 2 predictor) predicts followers' transformational leadership ratings (at level 1) in a multilevel analysis. Bliese, Halverson, and Schriesheim (2002) noted that "the study of leadership is inherently multilevel in nature'' (p. 4) such that a single leader has an effect on multiple followers. This study examines followers in clusters according to leader; therefore, reducing the likelihood of an inflated Type I error (Cohen, Cohen, West, & Aiken, 2003; Kelloway, 2014).

Hypotheses

Study Three will test two multi-level models each at the group and individual levels of analysis regressing follower transformational leadership ratings on motivation for transformational leadership by clustering followers by leader. Based on high correlations between some leadership dimensions, transformational leadership and contingent reward leadership were combined into a dimension called active-constructive leadership and laissez-faire leadership and passive management by exception into a dimension called passive-avoidant leadership. I have excluded active management by exception from the analyses based on results from Study One showing no significant correlations with motivation for transformational leadership. More details on this process are provided in the measures section. I will test the following hypotheses:

H10: Intrinsic motivation, integrated and identified regulation will positively predict active-constructive leadership.

H11: External and introjected regulation will positively predict passive-avoidant leadership.

Method

Organizational Context

Given the unique context of the Salvation Army, a second organization was recruited to participate in Study Three in order to test the hypotheses in two organizations. Leaders and followers from these two organizations participated in this study. Study One described the organizational context of The Salvation Army. The second participating organization in Study Three was Cumberland Health Authority, a small district health authority in Nova Scotia. There were a total of 43 managers, each of

whom was is in charge of a work unit including nurses, administrative personnel, and allied health professionals. Work unit specializations ranged from community healthcare to oncology and emergency care.

Participants

In total, participants in this study included 179 followers, nested within 37 leaders, grouped according to 2 organizations. In the health authority, 20 managers were matched with 121 followers, and 17 Salvation Army leaders were matched with 58 followers.

The Salvation Army

A total of 17 commissioned officers in The Salvation Army participated in the current study. Of these leaders, 14 were recruited as part of the five-year pre-confirmation institute, which involves all officers across Canada and Bermuda territory who are in their fifth year of commissioned officership. The institute provides training and development for relatively new officers. The remaining three leaders were recruited from the Canadian Maritimes region. Of the total 17 leaders included in the current study, 9 were male and 4 were female (4 unidentified), the average age was 42.23 with a range from 25 to 55 years. A large percentage of the leaders held an undergraduate degree (43.8%) while 25% had diploma education, 12.5% had high school, and 18.8% had graduate degree education. Leaders had 17.27 subordinates reporting to them, on average, and a mean of 24.15 people working in his or her department. Average organizational tenure was 11.17 years and average length of time in current appointment was 4.03 years. Each leader was rated by between 1 and 9 followers, with an average of 3.4 raters per leader.

In addition to leaders, this study also included follower data. For the purposes of this study, "follower" was defined as a congregation member, volunteer, or employee who works regularly with a Salvation Army leader. This study included 58 followers, who each rated one leader. Followers included 22 females and 20 males (16 unidentified), with a mean age of 51.07 and an age range from 20-71. Followers reported that they have worked with their leader between 0 and 30 years, with an average of 4.06 years and followers interacted with their leader either once or twice per week (36.2%), more than once per day (24.1%), once daily (3.4%), three to four times per week (33.4%), or fewer than once per week (13.8%). Many followers had a diploma education (35.2%) while 25.9% had an undergraduate degree, 20.4% had high school, and 18.5% had graduate degree educations. Followers identified their leader as one or more of the following: as their corps officer (church minister; 63.5%), as their boss (25%), or as a volunteer coordinator (19%).

Cumberland Health Authority

The study also included a sample of 20 managers in the Health Authority who were formal leaders in the organization with at least one subordinate. Of these managers, 6 were male, 14 female. The average age was 50.9 years with a range from 40 to 64 years. Many of the leaders held an undergraduate degree (45%) while others had high school (15%), diploma (5%) or graduate degree (35%) educations. Leaders had 29.6 subordinates reporting to them, on average, and a mean of 32.8 people working in his or her department. Average organizational tenure was 11.2 years and average length of time in current position was 6.8 years. Each leader was rated by between 1 and 15 followers with an average of 6 raters per leader.

This study also included 121 followers, who each rated only their own leader. Followers from Cumberland Health were 88.4% female, 11.6% male, with a mean age of 45.94 and an age range from 23-63. Followers reported that they have worked with their leader between 0 and 24 years, with an average of 3.6 years and many followers interacted with their leader more than once per day (38.8%) while others interacted once daily (7.4%), three to four times per week (19%), one or two times per week (19.8%), or fewer than once per week (14.9%). A large percentage of followers had a diploma education (48.8%) while others had high school education (6.6%), undergraduate degrees (26.4%), or graduate degree educations (18.2%).

Design and Procedure

The Salvation Army

An email was sent to all leaders involved in the pre-confirmation institute, which consists of all officers in the Canada and Bermuda territory who have five years of service. To increase the sample size, officers from the Maritime Provinces with comparable lengths of tenure (under 15 years) were also recruited. The email included a leader survey link for the leader to complete and a follower survey link for the leader to distribute to up to ten followers. I asked the leaders to recruit followers on my behalf in order to select the followers with whom they interacted the most and who would be able to give more informed ratings of the leader. Leaders were asked to email a recruitment script to up to ten followers, which included a follower survey link. Leaders provided self-ratings for transformational leadership and motivation for transformational leadership. Followers provided ratings of their leader's transformational leadership. All surveys were completed online using Qualtrics. Leaders in the pre-confirmation institute

were aware that they would be receiving feedback on their scores in a leadership training

session that was held in January, 2012, which is likely why the higher response rates were

in this group.

Cumberland Health Authority

All managers within Cumberland Health Authority received an email containing a

link to the online survey containing the transformational leadership and motivation for

transformational leadership measures. In order to collect direct report data, all employees

within the organization (N = 850-900) were sent an email including the subordinate

survey link and were asked to rate their direct supervisor's leadership. For ethical reasons,

all employees received the recruitment email and I was not able to specifically target

followers who interacted often with their managers as I did in The Salvation Army

sample. To further promote participation, managers were also asked to distribute flyers to

employees informing them of the survey and to read a recruitment script at a staff

meeting. Of the total sample of almost 900 employees, 121 followers participated who

could be matched with leaders who also responded to the survey (for a response rate of

approximately 14%).

Measures

Leaders completed the Motivation for Transformational Leadership Scale (Gilbert

et al., 2014) and Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1994),

described above. As in Study One, the four dimensions of transformational leadership

(intellectual stimulation, idealized influence, inspirational motivation, and individualized

consideration) were aggregated into a single measure based on high correlations between

the subscales (rs ranged from .80 to .91) and on previous research (e.g., Barling et al.,

2010; Kelloway et al., 2012). Demographic information such as age, tenure, years of

experience, and position were included. Followers rated their leaders using the MLQ and

also provided demographic information including the nature of their relationship with the

leader (e.g., employee, congregation member, volunteer, etc.) and how often they

interacted with their leader.

Descriptive analysis of the results revealed very high correlations between both

transformational and contingent reward leadership (correlated r = .93, p < .001) and

laissez-faire and passive management by exception (r = .81, p < .011). The correlations

are were so high that they preclude me from examining them as separate outcomes as I

did in Study One because of the lack of discriminant validity in this study. As a result,

contingent reward and transformational leadership were combined into a single composite

factor called active-constructive leadership. These scales have been combined this way in

previous research (Bycio, Hackett & Allen, 1995; Kelloway, Turner, Barling, &

Loughlin, 2012), which supports the idea that there is no clear distinction between the two

leadership styles, and they both represent positive forms of leadership. Bycio, Hackett,

and Allen (1995) found support for a two-factor model of full-range transformational

leadership comprising active leadership, a composite of transformational and contingent

reward leadership, and passive leadership, a composite of management by exception

leadership (laissez-faire leadership was not examined in this study). These authors found

insufficient discriminant validity between the contingent reward and transformational

leadership scales.

Passive management by exception and laissez-faire leadership were also

combined into a factor called passive-avoidant leadership. These scales have also been

combined in previous research (Bass & Riggio, 2006; Medley & LaRochelle, 1994; Den

Hartog et al., 1997; Druskat, 1994; Yammarino & Bass, 1990), with a similar rationale.

This is consistent with the view that these scales overlap – indeed Kelloway Mullen &

Francis (2006) combined items from both scales into one variable that they refer to as

passive leadership (see also Mullen, Kelloway & Teed, 2011). In both studies passive

leadership was distinct from, and predicted criterion variance above and beyond the

effects of, transformational leadership (Kelloway et al., 2006; Mullen et al., 2011).

Analysis

In this data, multiple followers rated the same leader, and this violates the

assumption of independence of observations (Kelloway, 2015). Multilevel modeling

(MLM) clusters followers' ratings according to their respective leaders, which is an

effective analysis to account for a lack of independence in responses (Hofman, Griffin, &

Gavin, 2000). Multilevel modeling using Mplus v. 7.0 was conducted to analyze the

relationships between leaders' motivation for transformational leadership and subordinate

transformational leadership ratings. Two methods of analysis were used to examine both

individual-level and group-level leadership ratings. Individual-level analysis allows for

the examination of whether a leaders' motivation influences leadership ratings differently

based on their unique relationship with each follower, whereas group-level analysis

allows for the examination of the effect of leader motivation on the shared perceptions of

leadership by the entire group of followers (Kelloway, 2014). In other words, does

motivation predict leadership differently when it is based on the individual experience

with a particular leader versus when it is based on a more objective group-level rating of

leadership?

In the individual-level analysis, leader motivation for transformational leadership constituted level two of the analysis and subordinate ratings of transformational leadership constituted level one. The model was conceptualized as a cross-level direct effects model (Kozlowski & Klein, 2000), where motivation for transformational leadership was considered a group-level effect and leadership perceptions were considered an individual-level effect. Followers were nested, or grouped, within their leaders. The group-level analysis is conceptualized as a level 2 model, where subordinate ratings were aggregated to the group level so that both leader motivation and follower ratings were included as level two variables.

Hypothesis testing using multilevel modeling involves accounting for significant between-group and within-group variance on the dependent variable, transformational leadership. In this study, between-group variance refers to differences in the average transformational leadership scores between groups, and within group variance refers to differences between followers reporting to the same leader. In the current study, I estimated between-group and within-group variance on the dependent variables using two models testing each hypothesis. The first model will look at individual-level leadership ratings (at level 1) and the second model will look at group-level leadership ratings (at level 2). Effects in multilevel modeling can be specified as either fixed or random (Kreft & de Leeuw, 1998). Study Three was interested in the fixed effects in the model where the slope is assumed to be constant across groups. In other words, it was expected that motivation for transformational leadership would predict leadership in the same way across groups. In this study, all model estimation was based on Maximum Likelihood,

and the -2 Log Likelihood (-2LL) was used to determine improvement in fit in subsequent

models, with smaller values suggesting a better model fit.

The first step of the analysis is to run the intercepts-only model to determine whether

enough variance exists across leaders in transformational leadership ratings to justify

multilevel modeling (Heck, Thomas, & Tabata, 2014). In this model, no predictors are

included and Mplus partitions the variance within and between groups to determine how

much variance in transformational leadership ratings lies at the leader level (level 2). It

allowed only the intercepts to freely vary across groups. This analysis generated a statistic

called the intra-class coefficient (ICC); an ICC of zero indicates that there is no variance

between groups on leadership ratings and that all variation exists within individuals

(Peugh, 2010). As the ICC value increases, so does the amount of variance that exists

across groups, meaning that the assumption of independence of observations is violated

and that multilevel modeling is an appropriate approach (Peugh, 2010). ICC values

between .05 and .20 are common in multilevel studies within the social sciences (Peugh,

2010; Muthén, 1991, 1994; Muthén & Satorra, 1989; Spybrook, Raudenbush, Liu,

Congdon, & Martinez, 2008). If there is no significant difference on the dependent

variable at level two, then further analysis cannot be justified because the point is to

explain group differences on the dependent variable. This model is also meant to establish

a baseline fit against which to compare subsequent models that include predictors using

the -2LL value for the baseline model.

The level-one model is as follows:

$$Y_{ij} = \beta_{0j} + \beta_{1j} (X_{ij} - \bar{X}_j) + r_{ij}$$

Where Y_{ij} is the leadership rating for the ith person under leader j, β_{0j} is the intercept value for leader j, e_{1j} is the slope value for leader j, and X_{ij} is the motivation for transformational leadership value for leader j, which is grand-mean centered by subtracting the overall motivation for transformational leadership mean ($\bar{X}_j$), and r_{ij} represents the residual score for leadership ratings between followers.

The equation for the level 1 null model is as follows:

$$Null\ Model:\ Y_{ij} = \beta_{0j} + r_{ij}$$

The second step is to run the conditional model, which includes the motivation for transformational leadership subscales as the predictor variables assessed at the leader level. This model is referred to as a means-as-outcomes model because all predictors are assessed at the between level, so it is trying to predict differences in group means (Kelloway, 2014).

In this data, leaders are also nested within two different organizations, making it necessary to account for differences between organizations when attempting to explain the dependent variable. Although a three-level analysis is possible where followers are nested within leaders, which are nested within organizations, having only two clusters at level three significantly reduces the number of parameters the model can estimate. As such, I controlled for organization in the analysis by conducting multi-sample analysis, whereby results are grouped by organization. No other control variables were included in the analysis because of the small sample size. As recommended by Kelloway (2014) and Peugh (2010) all level two predictor variables, meaning all motivation for transformational leadership scales, were grand mean centered such that the sample mean

for each motivation for transformational leadership subscale was subtracted from each

leaders' motivation for transformational leadership subscale score.

Results

Means, standard deviations, and intercorrelations for the level one and level two study

variables are presented in Tables 9 and 10.

Table 9. *Descriptive statistics and intercorrelations for level-one study variables.*

	N	Mean (SD)	Intercorrelations 1	2
Cumberland Health				
1. Active-constructive	121	2.02 (1.24)	(.93)	
2. Passive-avoidant	121	1.38 (1.11)	-.76†	(.95)
Salvation Army				
3. Active-constructive	58	2.99 (.70)	(.89)	
4. Passive-avoidant	58	0.78 (.69)	-.51†	(.89)

Notes. $* = p < .05$. $† < .01$; Coefficient alphas (α) are on the diagonal in parentheses

Table 10. *Descriptive statistics and intercorrelations for level-two study variables.*

	N	Mean (SD)	Amotivated	External	Introjected	Identified	Integrated	Intrinsic
					Intercorrelations			
Cumberland Health	104							
1. Amotivated MTFL	104	1.43 (.59)	(.89)					
2. External MTFL	104	2.62(1.22)	.30†	(.71)				
3. Introjected MTFL	104	3.61(1.77)	-.37†	.27†	(.85)			
4. Identified MTFL	104	6.06(.91)	-.64†	-.06	.77†	(.87)		
5. Integrated MTFL	104	4.81(.86)	-.28†	-.07	.15	.17	(.79)	
6. Intrinsic MTFL	104	5.56(.94)	-.73†	-.10	.49†	.76†	.26†	(.84)
Salvation Army								
7. Amotivated MTFL	58	1.30(.41)	(.65)					
8. External MTFL	58	2.80(1.00)	-.19	(.47)				
9. Introjected MTFL	58	4.91(1.00)	-.03	.19	(.88)			
10. Identified MTFL	58	6.39(.75)	-.12	-.02	.03	(.89)		
11. Integrated MTFL	48	4.77(1.44)	-.27	-.21	-.04	.68†	(.95)	
12. Intrinsic MTFL	48	5.66(.96)	-.43†	.53	.17	.30*	.04	(.82)

Notes. * = $p < .05$. † $< .01$; MTFL = Motivation for Transformational Leadership; Coefficient alphas (α) are on the diagonal in parentheses

I tested the hypotheses in four multi-sample multi-level analyses, predicting active-constructive and passive-avoidant leadership at both the individual and group-level with the five levels of regulation, grouping the results by organization.

First, I tested the cross-level direct effects of the leaders' motivation for transformational leadership (at level two) on individual-level leadership ratings (at level one). The null model results for active-constructive leadership suggest that there is significant between-groups variance in both The Salvation Army sample (ICC = .42) and the Cumberland Health sample (ICC = .41), which warrants cross-level analysis in each organization. This statistic means that differences across leaders account for 42.4% of the variance in active-constructive leadership ratings in The Salvation Army and 41.5% of the variance in these ratings in Cumberland Health Authority.

In the null model, the -2LL was -232.32. To test the conditional model, level-two predictors were included. This model's -2LL value decreased to 188.29, suggesting an improvement in model fit over the null model. In Cumberland Health, identified regulation was the only significant predictor of active-constructive leadership (β = .99, SE = .34, β/SE = 2.93, p = .003), whereas in the Salvation Army, intrinsic motivation (β = 1.09, SE = .25, β/SE = 4.30, p < .001) and external regulation (β = -.66, SE = .28, β/SE = -2.31, p = .021) were significant predictors.

The null model results for passive-avoidant leadership also showed significant variance between groups in both The Salvation Army sample (ICC = .30) and the Cumberland Health sample (ICC = .46). The null model -2LL was -209.77. Including predictors, the -2LL in the cross-level conditional model decreased to -171.00. Intrinsic motivation (β = -0.52, SE = 0.24, β/SE = -2.16, p = 0.031) alone negatively predicted

passive-avoidant leadership in Cumberland Health authority, but none of the levels of

motivation were significant predictors of passive-avoidant leadership and the individual-

level in the Salvation Army.

The null model for group level active-constructive leadership ratings had a -2LL

of -41.77. Although an intra-class correlation coefficient cannot be obtained in this

analysis because it does not include individual-level data, the between group variance of

the intercept can be reviewed to determine whether groups significantly differ in

leadership ratings. In this case, the between-groups variance, denoted by $\tau_{00,}$ in active-

constructive leadership is significant in the Salvation Army ($\tau_{00} = .34$, $p < .001$) and

Cumberland Health ($\tau_{00} = .85$, $p < .001$) samples. This significant between-groups

variance supports a multi-level analysis. When predictors were added to the model, the -

2LL decreased to -27.50, suggesting a better fit to the data over the null model. In the

Cumberland Health Authority, intrinsic regulation ($\beta = 0.45$, $SE = 0.13$, $\beta/SE = 3.34$, $p <$

0.001) and external regulation ($\beta = -0.34$, $SE = 0.12$, $\beta/SE = -2.80$, $p = 0.005$) were

significant predictors of mean active-constructive leadership. In the Salvation Army,

intrinsic motivation ($\beta = .77$, $SE = 0.26$, $\beta/SE = 2.96$, $p = 0.003$) and external regulation (β

$= -0.49$, $SE = 0.18$, $\beta/SE = -2.65$, $p = 0.008$) also predicted the group mean of active-

constructive leadership.

In predicting the group mean of passive-avoidant leadership ratings, the null model

between-groups variance, denoted by $\tau_{00,}$ in passive-avoidant leadership is significant in

the Salvation Army ($\tau_{00} = .24$, $p < .001$) and the Cumberland Health ($\tau_{00} = .60$, $p < .001$)

samples and the -2LL = -35.35. Adding predictors reduced the -2LL to -20.68, suggesting

a better fit. Identified regulation was the only significant predictor of mean passive-

avoidant leadership in Cumberland Health (β = -0.75, *SE* = 0.26, β/*SE* = -2.83, *p* = 0.005),

whereas introjected (β = -0.32, *SE* = 0.15, β/*SE* = -2.12, *p* = 0.03) and intrinsic regulations

(β = -0.61, *SE* = 0.24, β/*SE* = -2.60, *p* = 0.009) predicted this outcome in the Salvation

Army sample. Table 11 provides the results of the mixed-level analyses at both the

individual- and group-levels.

Table 11. *Results of mixed-level analysis.*

Group-Level Predictors	Group-Level						Individual-Level					
	ACL			PAL			ACL			PAL		
	β	SE	β/SE	β	SE	β/SE	β	SE	β/SE	β	SE	β/SE
Cumberland Health												
External MTFL	-0.341	.122	-2.802†	.031	.274	.113	-.347	.207	-1.678	.096	.236	.408
Introjected MTFL	-.160	.146	-1.094	.392	.283	1.386	-.346	.292	-1.186	-.175	.321	-.543
Identified MTFL	.050	.179	.279	-0.746	0.264	-2.832†	.993	.339	2.932†	-.097	.569	-.170
Integrated MTFL	-.083	.088	-.949	.269	.197	1.365	.028	.362	-.165	.127	.233	.547
Intrinsic MTFL	0.448	0.134	3.338†	-.143	.184	-.775	-.271	.362	-.747	-0.520	0.241	-2.162*
Salvation Army												
External MTFL	-0.491	0.185	-2.648†	.203	.251	.811	-.657	.285	-2.310*	.101	.278	.364
Introjected MTFL	-.162	.145	-1.113	-0.316	0.149	-2.125*	-.098	.194	-.507	-.128	.283	-.452
Identified MTFL	.081	.286	.284	.212	.267	.795	-.222	.254	-.872	-.115	.620	-.185
Integrated MTFL	-.219	.218	-1.003	-.109	.259	-.421	-.065	.282	-.231	.244	.352	.692
Intrinsic MTFL	.771	0.260	2.962†	-0.614	0.236	-2.604†	1.087	.253	4.296†	-.651	.556	-1.172

Notes. * = $p < .05$. † $< .01$; MTFL = Motivation for Transformational Leadership; ACL = Active-Constructive Leadership; PAL = Passive avoidant leadership

Discussion

Predicting Active-Constructive Leadership

Motivation for transformational leadership predicted active-constructive leadership similarly in each organization at both levels of analysis. In the Salvation Army, intrinsic and external regulations were the only significant predictors at both the individual and group levels. This finding supports the idea that autonomous motivation promotes active-constructive leadership, as was hypothesized, but also the idea that external regulation may be detrimental to this more effective leadership style. In Cumberland Health, identified regulation was the only significant predictor at the individual level of analysis, whereas intrinsic and external regulations were significant predictors at the group level. Identified is an autonomous form of extrinsic motivation, and this finding further supports the general idea that autonomous motivation positively predicts effective leadership. Previous research has found that, whereas intrinsic motivation predicts higher performance on interesting tasks, autonomous forms of extrinsic motivation predict higher performance on tasks that are important but not interesting and thus require discipline (Koestner & Losier, 2002). Hypothesis 10, which predicted that intrinsic, integrated, and identified regulation would predict active constructive leadership was partially supported in both samples such that certain autonomous forms of regulation did predict this style of leadership across organizations.

It is interesting that, although intrinsic and identified regulation played a role in predicting effective leadership, integrated regulation did not emerge as a significant predictor. Some previous researchers have had difficulty empirically distinguishing

integrated from intrinsic and identified regulation (Gagné *et al*., 2010; Ryan & Connell,

1989; Scott et al., 2014; Vallerand *et al*., 1992). Deci and Ryan (2008) argued that

integration may be very similar to intrinsic motivation, in that both types of motivation

involve a high level of choice and autonomy, but differ in that integrated regulation is not

fully intrinsic. Thus, although integrated regulation is similar to intrinsic motivation, it is

theoretically distinct because it is not based on interest in the behaviour itself, as in

intrinsic motivation, and rather has to do with fully integrating the value of the behaviour

(Deci & Ryan, 2008; 2000). Integrated and identified regulations were highly correlated

in the Salvation Army sample, but not in the Cumberland Health sample. So, in the

Salvation Army sample, integrated may be too similar to identified regulation to

distinguish the two, although they both emerged as separate factors in Study One.

Predicting Passive-Avoidant Leadership

Hypothesis 11 predicted that introjected and external regulation would positively

predict passive avoidant leadership. In The Salvation Army, nothing predicted individual-

level passive avoidant leadership, but at the group level, introjected and intrinsic

regulations were both significant negative predictors of this leadership style. These results

do not support Hypothesis 11, as they do not suggest that controlled types of motivation

promote this leadership style, and in fact, higher levels of introjected motivation may be

related to *less* passive-avoidant leadership in this sample. So, Salvation Army leaders who

are good leaders in order to avoid feeling guilty or to promote one's own self-esteem may

actually be less likely to be passive-avoidant leaders. This result may be directly related

to the organizational context, where, in this Christian environment, leaders feel 'called' to

their roles in the Salvation Army. As a result, leaders may be perceived as poor leaders if

they would not feel guilty if they ignored a call by God to be a good leader. The

introjected items pertain to putting in good effort as a leader in order to avoid feeling

guilty, bad about oneself, or ashamed. These leaders, who feel called by God to be in their

roles, might feel this way if they did shirk their responsibilities. Although this reflects an

external contingency, in this context, it may be important in followers' perceptions of

good or bad leadership. Consistent with previous findings, intrinsic motivation was

negatively related to passive leadership in this sample.

In Cumberland Health, passive-avoidant leadership had different predictors across

individual- and group-levels. Specifically, intrinsic motivation was a sole negative

predictor of this form of leadership at the individual level, but identified was the sole

significant negative predictor at the group-level. These results provided no support for the

idea that controlled types of motivation lead to more passive-avoidant leadership in any

of the analyses. However, these results do support the idea that passive-avoidant

leadership is negatively related to autonomous motivation; meaning that autonomously

motivated leaders are less likely to exhibit passive-avoidant leadership.

The results largely support the role of autonomous forms of regulation in

negatively predicting this style of leadership, with the interesting exception of introjected

regulation negatively predicting this style in the Salvation Army. This finding was

unexpected, however, it does make intuitive sense. Compared to external regulation,

introjection is an internal regulation, meaning that the behavior has been taken in by the

person and no longer requires an external contingency for motivation (Gagne & Deci,

2005). Although introjected regulation is still controlled, the control comes from within

the person. Also, it is an active form of motivation (i.e. it is not amotivation), and thus is

related negatively to a lack of enacted leadership behavior. Introjection is characterized

by wanting to demonstrate ability or to avoid failure to maintain feelings of worth (Deci

& Ryan, 2000), and these are motives that demand action and are incompatible with

laissez-faire and even passive management by exception. In this study, no form of

motivation positively predicted passive leadership. Conversely, autonomous forms of

motivation are related to less passive-avoidant leadership, particularly intrinsic and

identified regulation.

Hypothesis 10 predicted that intrinsic, integrated, and identified regulation would

be positively related to active-constructive leadership. This hypothesis was partially

supported in some analyses, where intrinsic and identified regulation emerged as

significant positive predictors of active-constructive leadership. In order to exhibit active-

constructive leadership in the Salvation Army, high intrinsic motivation as well as low

external regulation is important. However, in Cumberland Health Authority, highly

identified regulation alone is significant. What explains the differences in prediction

between these two samples? The answer may lie in the organizational context and the

way in which these leaders are compensated. In the Salvation Army, leaders receive very

low compensation. They receive a very small salary on top of which the Salvation Army

provides for their houses, cars, and bills. Thus, if these leaders have high external

regulation, they will not be motivated to behave as active-constructive leaders, because

they do not have access to many external rewards in their jobs. As such, it is critical that

these leaders are motivated more by intrinsic rewards from their jobs: fulfillment,

enjoyment, and interest. In their discussion of leadership in The Salvation Army, Watson

and Brown (2001) noted: "joy in service is one of The Salvation Army's primary

recruitment and retention tools" (p. 206). However, in Cumberland Health, leaders receive more reasonable/fair salaries for their work and promotions that are associated with higher pay, which may change the nature of motivation for transformational leadership in this setting. Here, fully internalized motivation may not be as necessary, and external regulation is not a significant predictor. However, a more controlled form of autonomous motivation, such as identified regulation, is more important in this setting-identified regulation. Thus, autonomous motivation is still important in this setting for effective leadership, but it does not have to be as highly internalized as in the Salvation Army setting, and perhaps similar types of non-profit service organizations.

Study Three highlights the importance of motivation for transformational leadership for follower perceptions of transformational leadership. We know that transformational leadership is related to more positive job attitudes (e.g., Barling, Weber, & Kelloway, 1996; Bycio, Hacket, & Allen, 1995; Hater & Bass, 1988; Koh, Steers & Terborg, 1995), contextual performance (Koh et al., 1995), and task performance (e.g., Howell & Frost, 1989; Kirkpatrick & Locke, 1996; Sosik, Avolio & Kahai, 1997). Because of the strong relationships between transformational leadership and these other outcomes, it is likely that motivation for transformational leadership may also affect these outcomes indirectly through transformational leadership. Mediation models examining the effect of leader motivation on follower and, in turn, organizational outcomes should be tested in future research.

Study Implications

The results from Study Three suggest that how a leader is motivated relates to leadership effectiveness as rated by followers. In short: why we lead affects how we lead.

As such, leaders' own motivation does seem to matter for leadership outcomes, and there may be a trickle down effect where a leaders' motivation ultimately influences followers' attitudes and performance. The findings have implications for research and practice.

Study Three highlights the importance of organizational context for motivation for transformational leadership because it examined leader motivation in two types of organizations. In the non-profit sector, where external rewards are scarce and where compensation is low, it may be more important for leaders to have high levels of fully internalized motivation and low levels of external regulation, in order to be effective. Individuals high in external regulation are likely just not a good fit for the Salvation Army officer role. Officers do have their basic needs met and live a comfortable life despite the low annual allowance that they receive (housing, car, and utilities are all taken care of by the organization). However, in this sector, leaders do not receive financial incentives based on performance, nor do they receive a financial bonus at the end of the year (Watson & Brown, 2001). These leaders are aware of these limitations when they become commissioned. The "bonus" that these leaders receive comes in the form of intrinsic satisfaction from helping others and deriving joy from service (Watson & Brown, 2001). Externally regulated officers will be unmotivated by these internal rewards, and with nothing to motivate them, they will be less successful, and likely to have lower job satisfaction and greater turnover (according to findings from Study One). As such, it may be more critical for non-profit organizations to screen out externally regulated leaders and also emphasize the intrinsic rewards of the work as a means of ensuring a good fit between the employee and the organizational context. When implementing this practice, it is important to fairly compensate all leaders and not screen

out externally regulated leaders as a means to get them to work for substandard wages. Nonprofit organizations may consider developing and implementing programs designed to promote more internalized motivation in leaders.

In the healthcare sector, and perhaps in other public organizations, motivation may predict leadership effectiveness differently due to the presence of external rewards and higher salaries. Autonomous motivation is still important, but avoiding external regulation and aiming for high intrinsic motivation may not be as critical. In these organizations, incorporating motivation measures into selection procedures to hire more autonomously motivated leaders may be useful, and interventions designed to promote autonomous motivation may increase overall leader effectiveness in the organization.

Interventions to promote autonomous motivation for transformational leadership may entail structuring the work environment to be more conducive to the satisfaction of leaders' basic psychological needs (Deci & Ryan, 2000). For example, organizations may support leaders' autonomy by ensuring that leaders have choice and flexibility in how they make decisions and delegate tasks (Baard et al., 2004). Need for relatedness may be supported by an organizational culture that values respect, and by allowing opportunities for leaders to meet with and support one another (Baard, 2002). Finally, need for competence may be satisfied by properly training and supporting leaders, providing regular feedback, and recognizing leaders' achievements (Baard, 2002). When organizations take specific action to attempt to satisfy these basic needs in employees, they make the workplace more conducive to the growth and well-being of leaders and, in turn, their subordinates (Ryan & Deci, 2002).

Limitations

This study had several limitations that should be noted when interpreting the

results. First, Study Three is limited by a small level-two sample size of 37 leaders. Due

to the complexity of calculating power and sample size requirements in multilevel study

designs, little advice is readily available regarding appropriate multilevel sample sizes

(Scherbaum & Ferretter, 2009). Maas and Hox (2005) found that a sample size of less

than 50 level-two units led to biased estimates of the level-two standard errors, but not to

biased regression coefficients in a simulation study. Kreft and De Leeuw (1998)

suggested that 30 is the smallest acceptable number of level-two units in multi-level

modeling. Other researchers acknowledge that there still may be utility in conducting

multilevel analyses on level two samples as small as 10 (Snijders & Bosker, 1999) and

that much organizational research uses level-two sample sizes that are less than 30

(Scherbaum & Ferretter, 2009). To account for low sample size, I included no control

variables and reduced the number of parameters estimated in the model and I used the

maximum likelihood with robust errors estimator, which is robust to non-normality

(Kelloway, 2014) and helps to correct for bias in small samples. Importantly, despite

having a small sample size, I did detect significant effects, which suggests that these

relationships may be substantial and should be replicated in future studies using larger

samples.

Second, the Salvation Army sample included followers who were not necessarily

subordinates and/or employees of leaders, and may instead have been volunteers or

congregation members. As such, the sample of followers may not generalize to some

employee subordinate samples found in the workplace. A third limitation was that

leaders recruited their own followers to participate in the study by sending them a link to

the survey on my behalf. This sampling method may have led to inflated leadership

ratings, as leaders could have selected followers who were most likely to give them

higher ratings and avoided recruiting followers who would give them poor leadership

ratings.

    The limitations of this study need to be taken into consideration when interpreting the

results of this study and in designing future studies examining the construct. However,

Study Three provides some further evidence to support the relationships between leader

motivation and leader effectiveness as perceived by followers.

Future Research

        Future research should build on these findings by examining how motivation

relates to follower outcomes, such as workplace attitudes, turnover intentions, worker

well-being, or employees' own motivation to work. The relationships assessed between

motivation and perceptions of leader effectiveness should also be examined using larger

samples across industries to determine whether they hold true in different contexts.

        As this study established that leader motivation is a significant predictor of

follower perceptions of leader effectiveness, future studies might examine how leader

motivation might be assessed and used in leader selection procedures to hire more

autonomously motivated leaders. In addition, studies may examine whether targeted

interventions, an autonomy-supportive leadership culture, or certain organizational

practices may promote more autonomous motivation. For example, transformational

leadership training may be a mechanism through which leader motivation may become

more internalized by satisfying leaders' intrinsic psychological needs (Baard, Deci, &

Ryan, 2004; Gagné & Deci, 2005). Transformational leadership training may satisfy the

need for competence by providing leaders with skills to perform effectively in their work.

Training may further support autonomy by allowing leaders to choose their own goals

and personal leadership mission, allowing for the possibility of failure, and providing

feedback in follow-up sessions, all of which are supportive of autonomy according to

Baard (2002). Finally, this training would provide an opportunity for leaders to connect

with colleagues who are also leaders in a similar context, which is supportive of

relatedness (Baard, 2002). Besides training, organizational culture and practices are likely

drivers of autonomous motivation, and these should be explored as potential predictors in

future research. Specifically, when their intrinsic needs are met, leaders can perform

optimally and are more likely to enjoy leading others (Baard, 2002), and this enjoyment

may lead to intrinsic satisfaction.

     This construct needs further development in terms of examining its antecedents

and outcomes. Potential antecedents of leader motivation may include personality, locus

of control, efficacy, and psychological needs satisfaction. Outcomes may include leader

outcomes such as health and well-being and objective performance measures, and

follower outcomes such as well-being, motivation, and turnover.

General Discussion

Summary of Studies One, Two, and Three

The findings of these three studies are important for advancing knowledge of leadership in the area of Industrial/Organizational Psychology. The three studies served to develop and explore the nature of a new construct, motivation for transformational leadership, and they contribute to the overall understanding of leadership behavior. Study One replicated results of a recent study initially examining the factor structure of this new construct, and found evidence for the validity of the motivation for transformational leadership scale. Study Two found that motivation for transformational leadership is relatively stable over a seven month time period, except for intrinsic and introjected regulations, which may be more likely to change within this time. Also, highly externally regulated leaders are less likely to change over time, whereas highly identified leaders tend to change more over time (in a negative direction). Study Three found that leaders' motivation significantly predicted follower leadership ratings, and that, in general, autonomous motivation was related to more active-constructive leadership and less passive-avoidant leadership, consistent with findings by Gilbert et al. (2014). By relating motivation for transformational leadership to perceptions of effective leadership, this set of studies supports motivation for transformational leadership as an important construct for future study. Based on these results, organizations should emphasize the development of autonomous motivation in leaders and potentially even select more autonomously motivated leaders.

Together, these studies find that a leaders' own motivation to be an effective

leader is an important antecedent of leadership outcomes. These studies fill a gap in the

literature in terms of our understanding of the predictors of effective leadership as rated

by leaders and followers. The findings suggest that a leaders' own motivation makes a

difference in their leadership performance. Although the leaders' level of internalization

of effective leadership may not be explicit to followers, it is likely to influence leadership

behavior and, ultimately, impact followers' experiences with the leader. As such, in the

leadership selection process when screening for important knowledge, skills, abilities, and

other characteristics (KSAOs) likely to lead to success in a leadership role, it may be

critical to also look at why a leader wants that job. A leader who possesses the key

KSAOs *and* wants to do well in the position, may be a star candidate who is likely to

exhibit the most effective styles of leadership. The motivation for transformational

leadership measure may be implemented as a selection tool or a tool to inform training

and development needs. For example, leaders may benefit from tailored leadership

training targeted at improving their level of internalization. In short, leader motivation

matters, and should be included in future studies to further understand its role in

leadership.

Different relationships between motivation for transformational leadership and

transformational leadership were found in Studies One and Three. Studies One and Three

both examined the relationships between leader motivation and leader performance. The

results differed slightly, perhaps because Study One used leader self-ratings of

transformational leadership, whereas Study Three used follower ratings and thus

addressed concerns about common method bias. I was able to examine all leadership

outcomes separately in Study One, but they were combined in Study Three due to high

correlations. As such, in Study Three I was unable to confirm the findings from Study

One by examining the same relationships.

Implications

The current set of studies explored leaders' motivation to enact effective leader

behaviours, an area of research that has not yet been explored. The results of these studies

suggest that motivation for transformational leadership matters for leader outcomes and is

also related to self-rated leadership behavior and perceptions of leader effectiveness.

Importantly, this study also provided evidence for the validity of a measure of motivation

for transformational leadership, which may be used in future research on the construct.

Although substantial research has examined the outcomes of transformational

leadership, much less work has examined predictors of this behavior (Barling, Slater, &

Kelloway, 2000; Bass, 1998; Nielsen & Cleal, 2011). The current research contributes to

knowledge of the predictors of transformational leadership behaviours, which currently

includes personality (Judge & Bono, 2000), emotional intelligence (Barling, Slater, &

Kelloway, 2000) and aspects of the work environment such as control (Nielsen & Cleal,

2011). Combined with these other findings, the current research may help to inform more

successful leader selection procedures wherein autonomously motivated leaders are

selected over amotivated or controlled candidates.

Further implications concern the finding that intrinsic motivation is not always the

best predictor of transformational leadership, but that in general, autonomous regulation

tends to predict this style of leadership. This finding is significant for practice because it

may be more realistic for organizations to promote autonomous regulation than to

promote fully internalized intrinsic motivation. There is evidence that organizations can

support self-determined motivation by manipulating the social context. For example, an

autonomy-supportive social context where the organization provides a meaningful

rationale for tasks, offers choice to leaders in decision-making, and acknowledges the

feelings of the leader may promote integrated internalization (Deci *et al.*, 1994).

Organizations may be able to implement autonomy support in leadership training and

development in order to promote internalization by leaders, and may also use similar

strategies in succession planning when candidates are being developed for future

leadership positions.

Limitations and Future Research Directions

Limitations of the current research include the use of primarily self-report data in

Studies One and Two, which generates the possibility for mono-method bias. Future

studies should make greater use of other-report data from peers, supervisors, and

subordinates or look at objective performance data, such as actual subordinate turnover,

as outcomes of motivation for transformational leadership. This series of studies also took

place largely within the context of a unique Christian non-profit organization, which may

reduce the generalizeability of the results to other types of organizations, particularly

publicly traded companies. Future research should try to replicate the results in different

organizational contexts and in different leadership roles. Other studies may also attempt

to explore motivation for effective leadership using leadership models that may be more

widely espoused in religious contexts, such as servant leadership, coaching models of

leadership, or similar models that are more focused on self-sacrifice and focus on communal goals and well-being.

Future studies may also examine other predictors of motivation for transformational leadership, which may include personality, psychological needs satisfaction, or situational variables. Other outcomes of the construct may include engagement, job performance, or innovativeness. Future research should also examine whether more autonomous motivation for effective leadership can be developed through leader interventions. Intervention studies could examine questions such as: What type of intervention will promote more autonomous motivation for good leadership?; How much can motivation change?; Can an externally regulated leader become intrinsically motivated over time, or will they at most become an introject?; Is it possible for an amotivated leader to become motivated at all?; How much change might we see in leaders who are already autonomously motivated?; How long is the change process?; What other factors influence change? Research should examine the nature of change in leader motivation using different time lags, and by including different organizational and individual-level covariates that may be related to the change.

Conclusion

This set of studies makes an important contribution to the leadership literature in that they develop and validate a new construct, which is an important predictor of effective leadership as rated by leaders and their followers. As such, this research fills a gap in the literature where little is known about the predictors of leadership. In short, the leaders' own motivation matters- both for leaders' own outcomes, such as job satisfaction and turnover intentions, and for effectiveness in their roles (as perceived by self and

others). The findings suggest that motivation is related to leadership style, and that

generally, autonomous forms of motivation promote transformational leadership whereas

controlled regulation and amotivation are negatively related to transformational

leadership. Further, the results of this study support the idea that certain forms of

motivation can *change* over time, which is consistent with the tenets of self-determination

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Appendix A

Motivation for Transformational Leadership Scale

(Gilbert, Horsman, & Kelloway, 2014)

Leadership Definition: Being a good leader involves challenging, inspiring, and motivating others to do their best, acting as a role model by doing the right thing, and treating others as individuals and helping them to meet their needs.

INSTRUCTIONS: There are a variety of reasons why people put effort into being a good leader at work. Please read the definition of good leadership above and then indicate the extent to which you agree with each of the following reasons for why you put effort into being a good leader.

I put effort into being a good leader…

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
External Regulation							
1. Because others will reward me financially (e.g., supervisor, colleagues, family, clients).	1	2	3	4	5	6	7
2. To avoid losing financial benefits.	1	2	3	4	5	6	7
3. Because I risk losing my job if I don't.	1	2	3	4	5	6	7
Introjected Regulation							
4. Because otherwise I will feel guilty.	1	2	3	4	5	6	7
5. Because otherwise I will feel bad about myself.	1	2	3	4	5	6	7
6. Because otherwise I would be ashamed of myself.	1	2	3	4	5	6	7
Identified Regulation							

7. Because it has a lot of personal meaning to me.

1   2   3   4   5   6   7

8. Because I believe it is worth the effort to be a good leader.

1   2   3   4   5   6   7

9. Because it aligns with my values.

1   2   3   4   5   6   7

<u>Integrated Regulation</u>

10. Because it comes naturally to me.

1   2   3   4   5   6   7

11. Because I was born to be a leader.

1   2   3   4   5   6   7

12. Because it is part of my identity.

1   2   3   4   5   6   7

<u>Intrinsic Motivation</u>

13. Because what I do as a leader is exciting.

1   2   3   4   5   6   7

14. Because the work I do as a leader is interesting.

1   2   3   4   5   6   7

15. Because I find it energizes me.

1   2   3   4   5   6   7

Please rate the <u>extent to which you agree or disagree</u> on how you feel about being a good leader.	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
<u>Amotivation</u>							
16. I really feel like I would be wasting my time by being a good leader.	1	2	3	4	5	6	7
17. I put little effort into being a good leader.	1	2	3	4	5	6	7
18. I just don't care about being a good leader.	1	2	3	4	5	6	7

Appendix B
Salvation Army Demographic Items

1.   Name: _____

2.   Are you currently in a formal leadership role?   ☐   Yes   ☐
                No

        a.   If yes, how many subordinates report to you? _____

3.   Please tell us which Salvation Army Division in which you currently reside
        _____

4.   Are you a commissioned Salvation Army officer?

        Yes   No

5.   If yes to question 3 above, how long ago was your most recent change in
        appointment?

                _____Years and _____Months

6.   Please indicate below the extent to which your most recent change in appointment
        impacted yourself and/or your family.

1	2	3	4	5
Not at all		Somewhat		To a very large extent

7.   How many people work in your department? _____

8.   Age   _____ years

9.   Gender   ☐   Male   ☐   Female

10.   Tenure with current organization _____Years _____Months

11.   Tenure in current job _____Years _____Months

12.   Job title _____

13.   Have you received any work-related leadership training within the past two years?

        Yes   No

a. If yes, please describe the training (what aspect of leadership did it focus on, what did you do in the training, etc.)

_____

_____

_____

_____

14.   What is your highest level of education?

☐   High school   ☐   Diploma
☐   Undergraduate degree   ☐   Graduate degree

15.   Would you like to be emailed a personal results profile which includes your own self-ratings of leadership and leadership ratings from any followers whom you recruit to the study? (This information will only be shown to you for personal development only and will be not be used to make any administrative or personnel decisions).

Yes   No

Appendix C
Cumberland Health Leader Demographic Items

1. Are you currently in a formal leadership role?   ☐   Yes   ☐   No

    a. If yes, how many subordinates report to you? _____

2. How many people work in your department? _____

3. Age   _____ years

4. Gender   ☐   Male   ☐   Female

5. Tenure with current organization _____Years _____Months

6. Tenure in current job _____Years _____Months

7. Job title _____

8. Have you received any work-related leadership training within the past two years?

    Yes   No
    b. If yes, please describe the training (what aspect of leadership did it focus on, what did you do in the training, etc.)

    _____
    _____
    _____
    _____

9. What is your highest level of education?

    ☐   High school   ☐   Diploma
    ☐   Undergraduate degree   ☐   Graduate degree

Appendix D
Follower Demographic Items

Please create a Personal Identification Number (PIN) using the following three questions so that we can link your responses from both surveys while maintaining your anonymity.
1. First four letters of mother's maiden name (e.g., MAID) _____
2. Day of the month that you were born (e.g., 30) _____
3. Last two letters of father's name (e.g., EN) _____

PIN Code: MAID30EN
[For phases Four and Seven only, the following question will be included:
Did you previously complete this survey in a different phase?
       Yes   No
       If yes, how many times have you completed this survey? _____]

1. Age   _____ years

2. Gender   ☐   Male   ☐   Female

3. What is your highest level of education?

    ☐   High school   ☐   Diploma
    ☐   Undergraduate degree   ☐   Graduate degree

Please answer the following questions as they relate to your relationship with the leader whom you rated on this survey.
4. Please choose your leaders' name from the drop-down menu below. [WILL INSERT DROP-DOWN MENU HERE].
5. What is the nature of your relationship with this leader?
   a. He/she is my corps officer (I am a congregation member)
   b. He/she is my boss (I am a Salvation Army employee)
   c. He/she is my volunteer coordinator (I am a Salvation Army volunteer)
   d. Other. Please describe: _____
6. How often do you interact with the leader whom you rated on this survey?
   a. More than once per day
   b. Once daily
   c. Three to four times per week
   d. One to two times per week
   e. Fewer than once per week
7. How long have you worked with this leader in his or her current Salvation Army appointment? _____Years and _____Months

Appendix E

Table 12. Results of Hierarchical Regression Analysis predicting laissez-faire, active and passive management by exception, contingent reward, and transformational leadership styles.

	Step 1: Control Variables				Step 2: MTFL Subscales				
	Gender	Age	Education	Amotivation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Motivation
Transformational Leadership									
Overall Model	$R^2 = .13$, $F(3, 236) = 1.03$			$\Delta R^2 = .37$, $\Delta F(6, 230) = 23.27$†					
B	.04	.00	.04	-.11	-.01	-.04	.19	.06	.07
SEB	.05	.00	.02	.05	.02	.02	.05	.02	.03
β	.05	.03	.09	-.15	-.04	-.16	.27	.17	.16
t	.79	.45	1.44	-.2.23*	-.79	3.52†	3.52†	2.63†	2.32*
Contingent Reward									
Overall Model	$R^2 = .02$, $F(3, 228) = 1.56$			$\Delta R^2 = .12$, $\Delta F(6, 222) = 5.27$†					
B	.11	.00	.05	-.02	.03	-.00	.31	.03	.00
SEB	.08	.00	.04	.08	.03	.03	.09	.04	.06
β	.09	.05	.09	-.02	.08	-.01	.32	.06	.00
t	1.42	.80	1.35	-.23	1.18	-.17	3.50†	.77	.03
Active Management By Exception									
Overall Model	$R^2 = .00$, $F(3, 234) = .22$			$\Delta R^2 = .03$, $\Delta F(6, 228) = 1.07$					
B	-.08	.00	.01	-.08	.06	.04	.06	.04	-.03
SEB	.11	.01	.05	.12	.04	.04	.13	.05	.08
β	-.05	-.01	.02	-.06	.10	.07	.05	.06	-.03

t	-.76	-.22	.26	-.73	1.39	1.00	.48	.78	-.34
Passive Management By Exception									
Overall Model	$R^2 = .01$, F(3, 233) = .54			$\Delta R^2 = .12$, $\Delta F(6, 227) = 5.37$†					
B	.00	.00	-.04	.07	-.01	.08	-.14	-.09	.02
SEB	.08	.00	.04	.08	.03	.03	.09	.04	.05
β	.00	-.03	-.07	.06	-.02	.20	-.14	-.18	.03
t	.07	-.51	-1.06	.82	-.33	2.96†	-1.62	-2.48*	.31
Laissez-Faire									
Overall Model	$R^2 = .01$, F(3, 235) = .58			$\Delta R^2 = .15$, $\Delta F(6, 229) = 6.51$†					
B	-.00	.00	-.03	.14	.01	.02	-.02	-.08	.00
SEB	.06	.00	.03	.06	.02	.02	.06	.02	.04
β	.00	-.01	-.08	.19	.05	.08	-.02	-.24	.01
t	-.06	-.14	-1.28	2.41*	.76	1.25	-.27	-3.29†	.12

Notes. * = $p < .05$, † = $p < .01$.