

**Relationships Between Transformational and Transactional Leadership with the  
Motivation of Subordinates**

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## **ABSTRACT**

### **Relationships Between Transformational and Transactional Leadership with the Motivation of Subordinates**

**David Goodridge**

Leadership is one of the most integral and valued aspects of business today. Furthermore, one of the major qualities of a great leader is the ability to motivate subordinates to work more effectively and ultimately achieve higher performance. In order to try to understand how leadership affects motivation in the workplace, this research explored the relationships between leadership styles and motivation types. A web survey was conducted. Twenty-two managers from different companies in varying industries completed a leader self-report questionnaire, while their subordinates completed a questionnaire that rated leadership style and subordinate motivation. It was found that there were some relationships between specific leadership styles and motivation types. Transformational leadership was found to be significantly and positively related to autonomous motivation. Active management-by-exception was significantly, negatively related to autonomous motivation and marginally significantly, positively related to controlled motivation. The research findings are compared with previous findings in the literature and contributions of this research are discussed. Limitations and future directions for research in this area are also discussed.

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## INTRODUCTION

Leadership is one of the most important ingredients for reaching peak performance in an organization. That is the reason that organizations will pay large sums of money for successful leaders like Jack Welch, or Steve Jobs. That is also the reason that leadership is a topic found on the list of longstanding best selling business books (Business Week, May 30, 2005). Companies understand the invaluable contributions that leaders make at all hierarchical levels of the organization.

Similarly, motivation is a leading topic of interest in business today. Every manager wants to know how to get the most out of the company's human resources. It can be said that human resources are an important part of any company. The key is being able to leverage that potential to take a company to new heights. That is the reason that motivation is so integral to a company's success.

Interestingly, there is practically no research that examines how leadership leads to peak performance through motivation. But, given the prevalence of these two constructs, combining the two seems a natural and logical step. There is plenty of research literature on leadership in general and on motivation in general, but very little on leadership as it relates to motivation. As such, linking these two constructs contributes to the knowledge base in this area of research and will provide practitioners with useful knowledge about how to use leadership to motivate employees.

This thesis will first define and describe leadership, as well as its importance vis-à-vis organizations. Then a motivation theory will be defined and described, as well as its importance vis-à-vis organizations. Lastly, links between leadership and



motivation will be proposed and tested whereby different leadership styles will be related to different types of motivation.

### *Leadership Theory*

#### *Historical Definitions*

Leadership has been defined and operationalized in many different ways over the past century. It has been defined as the concentration of group procedures when authors like Bernard (1927) wrote that the leader understands the desires and mission of the group, and focuses the energy of the group to achieving certain objectives. Other authors stated that leadership is a matter of one's personality and its effect on others. Bingham (1927) stated that a leader is a person who has the most qualities that are considered desirable to a particular group. Although Stogdill (1948) found that leader behaviour differs based on situation, Bird (1940) identified four main characteristics of leaders that appeared across various studies among a list of 79 traits. Those traits are extraversion, humor, intelligence, and initiative. Other facets of the definition of leadership identified by Stogdill (1974) historically included leadership as the art of inducing compliance, leadership as the exercise of influence, leadership as behaviour, leadership as a way to persuade, leadership as a power relationship, leadership as a facilitator of goal achievement, leadership as an effect of interaction, and so on. Bass (1960) has taken the general view that leadership is the influence that a leader has on the attitudes, conduct, and skills of subordinates.

### *Historical Theories*

Now that a brief historical review of the definition of leadership has been offered, I conduct a brief historical review of leadership theory in order to contextualize the current study. Leadership theory has evolved significantly since the early 1900s. Stogdill (1974) stated that the earliest writings on leadership recognized the following types of leadership: authoritative (dominator), persuasive (crowd arouser), democratic (group developer), intellectual (eminent person), executive (administrator), and representative (spokesman). A number of models, mostly rooted in Psychology, have been proposed to explain leadership behaviour. As a result, the possibility of identifying a single framework for leadership theory and research is difficult.

One leadership theory is the great man theory. Developed by Carlyle (1904), the great man theory describes leaders as the heroes of society or subgroups within society based on their personal qualities and achievements. Another leadership theory is the interaction-expectation theory. Under this theory, Stogdill (1974) credited Evans (1970) with proposing the path-goal theory of leadership, where the extent to which the leader shows consideration toward the follower, determines the follower's perception of abundant rewards. Furthermore, the extent to which the leader inculcates structure determines the follower's perception of the behaviours that will produce the desired rewards. Stogdill (1974) stated that House (1971) constructed a motivational theory leadership, which, as Stogdill describes it, expounded upon the path-goal theory proposed by Evans. In this theory, the leader's function is to motivate the follower by increasing the follower's value of work outcomes as well as increasing the follower's perception that achieving those valued work outcomes will lead to achieving valued

personal outcomes. The leader also clarifies path-goal relationships to increase motivation by reducing ambiguity. Based on performance, the leader then applies leader-controlled rewards, which are also motivational to the extent that they are valued by the follower, or the leader applies leader-controlled punishments, which are perceived as something to be avoided by the follower. Fiedler (1967) proposed the contingency theory of leadership, where “the effectiveness of a given pattern of leader behavior is contingent upon the demands imposed by the situation (Stogdill, 1974: 21).”

While the different approaches have allowed researchers to describe interesting findings in their research, even practical applications, recent emergent perspectives have only begun to approach leadership as an integrative element of the business environment. Among those perspectives are types of leadership such as transactional leadership and transformational leadership, both first defined by James Macgregor Burns (1979) in his Pulitzer Prize winning book “Leadership.” This leadership theory has been chosen for examination, not only because it is dynamic and intriguing, but also because it is one of the most widely researched leadership theories in the scholarly literature today.

### *Transformational and Transactional Leadership*

Burns (1979) stated that transactional leadership is based on the exchange of something between those being led and the leader. The leader approaches the follower in order to arrange an exchange of which each may value and benefit from. In transactional leadership, both the leader and the subordinate are mutually dependent on the other. While there is a significant difference between the power resources of each

individual, both members are aware of this disparity, and it is generally accepted as long as the subordinate benefits from this discrepancy. Bass (1985) later expounded upon that definition by adding specific components to it. He stated that transactional leadership could be exercised through the use of a contingent reward system, or management-by-exception. In a contingent reward system, a subordinate is given a reward contingent upon the performance level of that subordinate. If the subordinate reaches predetermined performance levels, then a reward is given by the leader. These rewards can be monetary, or they can be given in the form of a promotion or public praise. An example of contingent reward can be if a salesperson is offered a cash bonus for selling a certain number of units. This person may be motivated to work harder in order to receive the bonus, a reward that is contingent on the level of the person's performance. Contingent reward is an aspect of transactional leadership that focuses on rewarding favourable organizational outcomes resulting directly from subordinate effort. Management-by-exception, on the other hand, is an aspect of transactional leadership that focuses on taking corrective action for unmet standards. This style tries to maintain the status quo and avoid performance decreases as opposed to encouraging performance increases. An example of management-by-exception can be if a salesperson knows that he must sell a minimum number of units per month or face a reduction in wages. In this example, the punishment for not filling the quota is enough to motivate the salesperson to try to do so. Management-by-exception can be either active or passive (Bass and Avolio, 1989; Howell and Avolio, 1993). Active management-by-exception is when a manager is active in monitoring subordinate work for irregularities or deviations from the desired performance, standards, or norms, and

makes arrangement to correct this course. Passive management-by-exception is when a manager waits for performance to fall below desired levels before warning or punishing subordinates for their lack of execution. What contingent rewards and management-by-exception have in common is that the subordinate's motivation to act is external.

Lastly, there is a laissez-faire style, which is basically a lack of leadership where leaders do not engage in much leader-follower interaction, but simply allow things to happen without much decision-making or control.

In contrast, transformational leadership, or transforming leadership, according to Burns (1979), is more complex. A transformational leader attempts to tap into what motivates subordinates, and satisfy higher needs of achievement and contribution (Burns 1979). The resulting effect of transformational leadership is that subordinates are stimulated in such a way that they will have the propensity to become leaders themselves (Burns 1979). Avolio, Waldman and Einstein (1988) stated that transformational leadership contrasts with transactional leadership in two main ways. First, while transactional leaders focus on recognizing the needs of followers in order to use rewards to motivate them, transformational leaders work to elevate the needs of their followers from personal achievement to group achievement. Avolio et al. (1988) discussed that followers' motivation can be enhanced by having followers raise expectations of their own needs and accomplishments to the level of group accomplishments. According to the authors, doing things such as giving employees more responsibility and autonomy has transforming effect on subordinates, as they become leaders themselves. And transforming followers into leaders is the second major distinction between transformational and transactional leadership, according to

Avolio et al. (1988). Burns (1979) stated that under this style, leaders and followers raise one another's motivation. Their purpose and goals are initially distinct but related and progress slowly to a fused entity, shared by both parties. Burns coined it transforming leadership as it elevates the level of a subordinate's motives from individualistic to collective. Transforming leadership makes subordinates internalize the vision of the leader and, therefore, transforms followers into champions of that vision. In his book, Burns was describing leadership in a general context, including business, political and social realms. Other researchers, however, have taken the definition that Burns began with and broke it down into specific components, which have evolved over years of research.

In early research, the components of transformational leadership were charisma, individualized consideration, and intellectual stimulation (Avolio et al., 1988; Bass, Avolio, Waldman, Bebb, 1987; Seltzer & Bass, 1990). Therefore, the definition of this leadership style was three-pronged. Charisma was stated to be the central characteristic in transformational leadership and accounted for the largest percentage of variance in transformational leadership ratings (Avolio et al. 1988; Bass et al., 1987). It is defined as the extent to which followers are proud to be associated with a leader and the extent to which they want to emulate a leader (Avolio et al. 1988; Bass et al., 1987). There is also an element of trustworthiness in a leader with charisma (Avolio et al. 1988; Bass et al., 1987). Followers are more apt to put their trust in a leader with charismatic qualities. Followers of charismatic leaders also tend to support the values of their leader and adopt them as their own (Bass, 1985). Lastly, followers form strong emotional ties with charismatic leaders (Bass, 1985). Individualized consideration is an

element of transformational leadership that allows leaders to not only identify needs of followers, but to also mentor followers in order to aid followers in raising their goals to a level that will enable them to grow as individuals (Avolio et al. 1988; Bass et al., 1987). Intellectual stimulation is the way that leaders can encourage their followers to think outside of the box, use lateral thinking to question old ways of doing things in the interest of constantly improving work processes and strategy (Avolio et al. 1988; Bass et al., 1987). However, the definition changed slightly in 1988. Charisma became charisma/inspirational leadership (Avolio et al., 1988). Charisma/inspirational leadership is when a leader provides subordinates with an energizing, unambiguous role and sense of significance, is a role model, and builds identification with the leader's vision (Avolio, Bass, Jung, 1999). Inspiration was added, but considered synonymous. In 1991, charisma and inspiration were considered separately. Charisma was called idealized influence (Avolio, Waldman, Yammarino, 1991), and the transformational leadership definition was referred to as the four I's: idealized influence (charisma), inspiration, individualized consideration, and intellectual stimulation.

In their meta-analysis, Lowe, Kroek, and Sivasubramaniam (1996) discuss the fact that transformational leadership is actually an extension of transactional leadership. Leaders are able to manage and motivate people to perform the mundane tasks of their jobs through some transactional style, but they are also charismatic enough to motivate people to work toward higher goals. Waldman, Bass and Yammarino (1990) also discuss the additive effect of the most salient element of transformational leadership, charisma, on one of the elements of transactional leadership, contingent rewards. "Contingent-reward behaviour can be viewed as the basis of effective leadership, and

charismatic leadership can be viewed as adding to that base for greater leader effectiveness” (Waldman, Bass, and Yammarino, 1990: 384). A more recent meta-analysis by Judge and Piccolo (2004) also shows that transformational leadership and contingent rewards have a relation to one another and that transformational leadership has an additive effect on leadership criteria over contingent rewards leadership. Transformational leadership was found to have the highest overall validity in conjunction with leadership criteria, which were follower job satisfaction, follower leader satisfaction, follower motivation, leader job performance, group or organization performance, and rated leader effectiveness. Contingent rewards leadership was found to have the second highest validity in conjunction with those same leadership criteria. Management-by exception (both active and passive) and laissez faire leadership were found to have a negative relationship with the leadership criterion. Using a transformational leadership style leads to positive effects on job satisfaction, organizational commitment, and performance (Chen, 2004; Howell and Avolio, 1993; Koh, Steers, and Terborg, 1995; MacKenzie, Podsakoff, and Rich, 2001; Waldman, Ramirez, House, and Putnam, 2001).

### *Motivation Theory*

Motivation theories can be categorized along a spectrum with mechanistic theories on one end and organismic theories on the other (Deci & Ryan, 1985). Mechanistic theories are based on the assumption that people are inherently passive, pushed into action by external forces in their environment and physiological drives (Deci & Ryan, 1985). At the other end of the spectrum, organismic theories assume



that people are active, behaving based on will and psychological needs, which make them want to act (Deci & Ryan, 1985). Organismic theorists believe that people act, whereas mechanistic theorists believe that people react. The root of motivation in psychoanalytic theory focused on human drives. Drives were considered the causal basis upon which people engage in behaviour (Deci & Ryan, 1985). Freud (1917) stated that there are two main types of drives – sex and aggression, while Hull (1943) stated that the main drives were – hunger, thirst, sex, and the avoidance of pain. The problem with drive theory, however, is that it cannot fully account for normal human developmental learning because it only deals with a person's basic needs that are present at birth and unchanging throughout life (Deci & Ryan, 1985). For example, a person will always feel hungry at some point during a day no matter what their life circumstances. White (1959) proposed a theory that complemented drive theory to lend an explanation to learning and exploration. He referred to it as effectance motivation, which postulated that people are motivated to be effective in their environment (White, 1959). In other words, people have an impetus to put forth effort in things other than basic physiological needs.

Theories such as goal setting theory and behaviour modification theory focus on external ways to motivate people. Goal setting theory, as described by Latham and Locke (1991), states that setting goals is the best way to motivate people, as long as they are committed to the goal, and have a reasonable expectancy of being able to achieve the goal. The theory requires that goals be moderately difficult and specific in order to be effective in motivating a person.

Behaviour modification is a theory that looks at reinforcement as a means to motivate, and it is based upon Skinner's operant learning theory (Skinner, 1953).

Luthans and Martinko (1982) stated that an intervention strategy has to be developed and evaluated in order to effectively change one's behaviour through the use of reinforcement, punishment, or extinction (Luthans & Martinko, 1982). Positive reinforcement is the introduction of a behaviour-contingent reward, which is supposed to encourage a certain behaviour (Luthans & Martinko, 1982). Negative reinforcement is the behaviour-contingent removal of a negative environmental occurrence, which is also supposed to encourage a certain behaviour (Luthans & Martinko, 1982).

Punishment is the introduction of a negative behaviour-contingent consequence, which is supposed to decrease the frequency of a behaviour, and extinction is the gradual reduction in a positive behaviour-contingent consequence, which is also supposed to reduce the frequency of a certain behaviour (Luthans & Martinko, 1982). This is a theory that is based on controlling behaviour through the use of these strategies that use external consequences to motivate behaviour.

Looking at these motivation theories throughout history, one can see that human motivation can either be said to emanate from within through drives and/or intrinsic motivators, or from external incentives or control, which is extrinsic to the person. I have chosen Self-Determination Theory (SDT) as the motivation theory for this study. SDT deals with how intrinsic and extrinsic motivation can be defined and how they interact within a person. The following section discusses a brief history of SDT.

### *Intrinsic and Extrinsic Motivation*

The discussion of internal and/or external forces driving behaviour is very similar to the concepts known as intrinsic and extrinsic motivation. Intrinsic motivation is when a person engages in a task purely for its own sake (Gagné & Deci, 2005). A person is motivated by the satisfaction and enjoyment that is derived from engaging in that task. Extrinsic motivation occurs when a person engages in a task for instrumental reasons (Gagné & Deci, 2005). A person is either motivated to receive the reward that he/she is to receive upon satisfactory or above average performance in completion of the task, or to avoid a punishment that he/she is to receive upon below average performance in completion of the task. As has been described, most motivation theories look at either intrinsic motivation or extrinsic motivation.

Porter and Lawler (1968) first proposed that people should be motivated both intrinsically and extrinsically. They described that people's jobs should be made more interesting, to satisfy their intrinsic need for challenge and achievement and increase job satisfaction, and they also described that people should be well paid and promoted for above average performance, providing extrinsic motivation. According to Porter and Lawler (1968), this would yield optimal motivation levels in employees.

Some contended that extrinsic controls tend to have an undermining effect on intrinsic motivation, meaning that work conditions could not usually have a synergy of extrinsic and intrinsic motivation due to this effect (Gagné & Deci, 2005). Early research by Deci (1971, 1972) revealed that the relationship between intrinsic and extrinsic motivation is not additive, but rather that, in some cases, extrinsic motivation reduces intrinsic motivation. More specifically, Deci (1971, 1972) found that tangible

extrinsic rewards lessened intrinsic motivation, whereas verbal extrinsic rewards promoted intrinsic motivation. A meta-analysis has also been done by Deci, Koestner and Ryan (1999) to examine the effects of expected and tangible extrinsic rewards that were contingent upon task completion and task performance. In their study, they once again found evidence to support Deci's earlier results. Extrinsic rewards that are contingent upon task completion or a certain predetermined level of task performance have an undermining effect on intrinsic motivation. Essentially, Deci and Ryan (2000) stated that when people perceive or know that they are being evaluated on a task based on their performance of that task, then their intrinsic motivation to perform that task is stifled, and this will have negative effects on productivity only when the task is complex or creative. According to the researchers, the reason for this is something called locus of causality. This refers to whether people perceive the cause of their actions and achievements to be internal, resulting from their own will or choice, or external, resulting from performance contingent rewards. Deci and Ryan (2000) stated that an internal or autonomous orientation is directly associated with "self-actualization and self-esteem," whereas external or control orientation is associated with "anxiety" and "self-consciousness" (Deci & Ryan, 2000:43). They stated that internal locus of causality promotes fulfillment of the individual and that a "heavy emphasis on pursuit of extrinsic goals and rewards such as money, social recognition and appearance ... may actually distract from or interfere with ... fulfillment" (Deci & Ryan, 2000:45).

In most if not all cases, it is impractical to attempt to exclusively motivate employees intrinsically. Deci and Ryan (2000) stated that tasks must have some element of interest to the employee(s) performing them. However, many items on the

“to do” list at work do not exactly enrapture the employees, and no strategy to increase intrinsic motivation will have much effect (Gagné & Deci, 2005). Some of those items cannot be made more interesting. Moreover, employees need money to pay bills (Gagné & Deci, 2005). Therefore, in most cases there will be a mixture between the two types motivation. Amabile (1993) stated that, under some circumstances, the two types of motivation could be compatible with each other. She posited that the two concepts are independent, but that they can interact. The interaction between intrinsic and extrinsic motivation takes place based on the initial state of the person performing a task. If a person’s initial intrinsic motivation is very high (Amabile, 1993), then supportive, or what Amabile calls synergistic extrinsic motivators can be used to complement that intrinsic motivation. Synergistic extrinsic motivators are motivators that support intrinsic motivation in that they support a person’s sense of “competence without undermining their self-determination” (Amabile, 1993:194). An example of this could be positive feedback from the boss that instills a sense of competence in the subordinate. Non-synergistic extrinsic motivators, which cannot complement intrinsic motivation according to Amabile (1993), are extrinsic motivators that lead people to feel restricted or kept under control. “These undermine one’s sense of self-determination without adding to feelings of competence or deep involvement in the work. Stringent controls over the conduct of one’s work should have such effects as should any rewards, recognition, or evaluation systems that lead people to feel controlled by powerful others” (Amabile, 1993: 195).

Self-determination theory (SDT, Deci & Ryan, 2000) proposes a continuum of the two overarching types of motivation: intrinsic motivation and extrinsic motivation.

At one end lies intrinsic motivation. Self-determination theory also posits various kinds of extrinsic motivation that vary in how internalized they are. Internalization is the act of taking in and adopting the value behind a regulated behaviour (Gagné & Deci, 2005). The more one internalizes the regulation of a behaviour, the more autonomous one feels, thus moving closer to the category of intrinsic motivation on the continuum. There are four categories on the continuum: external regulation, introjection, identified regulation, and intrinsic motivation. These will be defined in the following paragraphs. It is important to note that the former three are all types of extrinsic motivation that vary in the degree of how controlled versus how autonomous they are. Controlled motivation means that a person either feels that their superiors control their actions, and they perform them for some other benefit that will be derived from doing it, or that their actions are spurred on by internal feelings of pressure or guilt. Autonomous motivation is when one feels that one is performing actions because they are consistent with one's personal values and goals. The aforementioned list is ranked from most controlled to most autonomous forms of motivation.

The most controlled form of extrinsic motivation is external regulation. It is the classic form of extrinsic motivation. A person is externally regulated when that person is performing an action in order to achieve a desirable external outcome, such as a pay raise, or in order to avoid a negative external outcome, such as a pay cut. This is the form of extrinsic motivation that was originally distinguished from intrinsic motivation in early research (Gagné & Deci, 2005).

Another type of motivation that falls under the category of controlled motivation is introjected regulation. This is when a person has partly internalized the regulation

without having a sense of congruence of the values behind the regulation. The person's motivation comes from the self-esteem derived from performing in accordance with the regulation (Gagné & Deci, 2005). Although introjection includes partial internalization, a person at the level of introjected regulation does not identify with the values and goals behind the regulation. For this reason it is not considered autonomous motivation, but controlled motivation. An example of this is working hard in order to feel like a worthy person.

The next form of extrinsic motivation is more internalized and is labeled identified regulation. It is considered an autonomous form of intrinsic motivation. With this type of extrinsic motivation, people perceive that they are able to do what they consider to be meaningful and important. Although people feel autonomous, the behaviour is not intrinsically motivated (Gagné & Deci, 2005). It is done for instrumental reasons such as reaching a personal goal. An example of this could be a financial planner who dislikes paperwork. The financial planner highly values helping people to reach their financial goals and is motivated to that end, but must do the important but boring paperwork necessary to achieve that.

The most autonomous form of motivation is intrinsic motivation. People engage in the action because of the pure satisfaction and enjoyment that they derive from it (Gagné & Deci, 2005). For example, the financial planner used in the previous category could love nothing more than to plan finances. He/she does this job simply for the satisfaction they get from it. This person finds their job fun.

One could split the continuum into controlled versus autonomous forms of motivation, so that controlled motivation consists of extrinsic regulation and

introjection and autonomous motivation consists of identification and intrinsic motivation (Gagné & Deci, 2005).

Self-determination theory has been chosen for examination because it balances the two forms of motivation, which is something that most other prominent work motivation theories lack. Another reason for choosing SDT for this research is that it seems to fit quite nicely with the constructs of transformational and transactional leadership. The reasoning behind this will be explored further in the coming sections.

SDT also states that there are behaviours that leaders can assume in order to create an autonomy supportive environment, which is a work environment that encourages internalization and the use of autonomous motivation. These behaviours will likely help subordinates to internalize regulations and become more identified or intrinsically motivated.

#### *Autonomy Supportive Behaviours*

Deci and Ryan (2000) stated that people want to learn and need to feel competent, related to others, and autonomous. When these needs are satisfied, people are more likely to be intrinsically motivated. An autonomy supportive work environment leads to satisfaction of these three fundamental human needs: competence, relatedness, and autonomy (Deci & Ryan, 2000). One feels competent when they achieve results that contribute to goals (Teodorescu & binder, 2004). One feels autonomous with a sense of freedom to choose their actions. DeCharms (1968) described this through the use of metaphor. “Man is not a stone, for he is a direct source of energy; nor is he a machine, for the direction of the behaviour resulting from



his energy comes from within him. Rather, *man is the origin of his behaviour*"

(DeCharms, 1968:271). Relatedness is when a person feels valued by peers, as well as reciprocal support, encouragement and a sense of team (Baumeister & Leary, 1995). According to Baard, Deci, and Ryan (2004: 2046, 2047), "if its satisfaction is shown empirically to be associated with people's growth and health, it is a *need*; If its satisfaction is not associated with such outcomes, it is merely a *desire*.... Everyone is assumed to have these innate needs... so the degree of a person's need satisfaction is hypothesized to predict positive work-related outcomes."

"The satisfaction of these needs is what causes followers to internalize regulation. Internalization is the process through which controlled motivation is transformed into autonomous motivation... When people take in a regulation without making it their own, the process is considered relatively ineffective and unstable. It is only when they identify with the value of the behaviour and integrate its regulation with their sense of self that the process can be considered relatively effective and stable" (Williams, Minicucci, Kouides, Levesque, Chirkov, Ryan, Deci, 2002:514).

Self-Determination theorists have stated that the satisfaction of these basic needs can be achieved through autonomy support (Baard, 2002). Autonomy support is when a leader creates an environment that facilitates self-determined motivation of subordinates through supporting the 3 basic needs. Baard (2002) provided an outline of methods for creating an autonomy supportive environment. Regarding the need for autonomy, supportive leader behaviours include optimizing subordinate's control/influence, ameliorating internal and external pressures, eliminating excessive rules, allowing self-selection of tasks, permitting failure, taking subordinates' perspective, providing non-controlling feedback, communicating assertively but not aggressively, and avoiding manipulative incentive programs. Regarding the need for competence, supportive leader behaviours include training and support, removing efficiency barriers, goal

collaboration, helping to determine reasonable ambitions, providing challenging work, helpful feedback, minimal criticism, and promoting self-discovery of mistakes.

Regarding the need for relatedness, supportive leader behaviours include holding regular meetings, encouraging teamwork and team-building exercises, discouraging gossip, sharing information, and giving rewards supporting cooperation.

Research by Baard, Deci, and Ryan (2004) indicated that a person's feelings that they are in control to choose their work outcomes, and their perceptions of their manager's autonomy support, were the main predictors in their feelings of satisfaction of relatedness, autonomy and competence. Furthermore, the satisfaction of the three basic needs then predicted psychological adjustment and performance evaluations. This study was corroborated by a cross-cultural study done by Deci, Ryan, Gagné, Leone, Usunov, and Kornazheva (2001). Their model, depicting that autonomy support led to needs satisfaction, which in turn led to engagement in the workplace, lower anxiety, and general self-esteem, was supported not only in a U.S. company, but in a state-owned Bulgarian company as well (Deci, Ryan, Gagné, Leone, Usunov, Kornazheva, 2001). Based on this research, it seems interesting to note that one of the root predictors of these outcomes was the employee perception of the manager's autonomy supportiveness. As such, it is interesting to look at the role of leadership in determining predictors of autonomy support, internalization, and intrinsic motivation.

## **LEADERSHIP AND SELF-DETERMINATION THEORY**

Each type of leadership, transformational and transactional, has its own distinct type of link to motivation types proposed by SDT. This is especially apparent with the

concept of transactional leadership and extrinsic motivation. A transactional leader attempts to incite behaviour and performance through the use of reward or punishment, which are extrinsic motivators. It seems natural to test to see how transformational and transactional leadership would fit with the types of work motivation proposed by self-determination theory.

### *Transformational Leadership*

Transformational leaders have that element of personal consideration and support, which lends itself to the creation of an atmosphere where people feel that they can relate with one another. Furthermore, inspiring and communicating a vision that this leader is passionate about should attract workers who share in that vision. This is the element of charisma and inspirational motivation that are components of transformational leadership and that can bring out the best in a worker simply because that worker is more autonomously motivated to work toward something that she is passionate about. In the autonomy continuum, the more a person internalizes a goal and the values behind it, the more autonomous the motivation becomes. Charisma, one of the characteristics of transformational leadership, has been shown to promote a sense of collective identity in followers, which leads to shared values (Conger, Kanungo, Menon, 2000). Shared values facilitate goal internalization (Conger et al., 2000). The more a subordinate feels that they share the same values as his/her leader, the more related that subordinate will feel. Shamir, House, and Arthur (1993) constructed a model of the motivational effects of charismatic leadership on followers, based on the self-concept of followers. Self-concept is the set of values and the identity that a person

possesses (Shamir et al., 1993). The leader must appeal to the self-concept of the follower in order to be transformational (Shamir et al., 1993). Shamir et al. (1993) stated that charismatic leaders increase the intrinsic value of goals and objectives by appealing to the self-concept of the follower, thus creating a motivation for followers to pursue those goals. In other words, as people feel more related to whom they follow and what they do at work, they will feel more autonomous in their work as well. They will feel that they choose to carry out that work because it relates to them. "Humans are not only pragmatic and goal-oriented but are also self-expressive.... We "do" things because of what we "are," because by doing them we establish and affirm an identity for ourselves" (Shamir et al., 1993: 580). The authors go on to state that charismatic leaders have transformational effects on followers because they "appeal to existing elements of the followers' self-concepts – namely, their values and identities (Shamir et al. 1993: 588)," which increases the "intrinsic valence (Shamir et al., 1993: 582)" of their efforts. Shamir et al. (1993) described how in the case of the most intrinsically motivated behaviour, the charismatic leader causes the follower to internalize values and integrate behaviour to the self-concept. In effect, charisma can promote internalization.

Menon (1999) showed that when an organization has inspiring or exciting goals that are communicated and promoted by a transformational leader, then employees were more apt to internalize organizational goals. Transformational leadership has also been shown to promote a feeling of psychological empowerment in subordinates. In eight Turkish organizations, each in different industries, 152 subjects were given a questionnaire measuring the effect of transformational leadership on empowerment

perceptions of subordinates as well as team effectiveness (Ozaralli, 2003).

Transformational leadership was found to have a significant, positive effect on empowerment. Given that a state of psychological empowerment has been shown to foster autonomy, competence, and, according to Menon (1999), goal internalization, and given that transformational leadership has been found to engender a state of empowerment by subordinates, it can be stated that transformational leadership is likely to prompt internalization of organizational goals in subordinates. With regards to the third basic need, relatedness, House and Shamir (1993) found that transformational leadership leads to followers having a sense of affiliation that motivates them and to cohesion among the work group. Moreover, cohesion has been linked to satisfaction and member interactions (Bettenhausen, 1991). This indicates that cohesion is equivalent to the connectedness of subordinates to others in the work group.

Transformational leadership leads to cohesion as well (Dionne, Yammarino, Atwater, Spangler, 2004; Sparks & Schenk, 2001). Transformational leadership, therefore, is positively linked to relatedness as well, through cohesion. Lastly, Sarros, Tanewski, Winter, Santora, and Densten (2002) found that transformational leadership is significantly related to lower work alienation whereas transactional leadership is significantly related to higher work alienation. It seems natural to infer that lower alienation, which is linked to transformational leadership according to Sarros et al. (2002), would mean satisfaction of the basic need of relatedness with the group.

These studies show that transformational leaders may lead subordinates to internalize values. This engendering of internalization leads employees to be more autonomously motivated. According to Gagné and Deci (2005), the more internalized

the values behind regulated behaviours, the more autonomous the motivation will be to perform those behaviours. Furthermore, the satisfaction of the competence and relatedness needs will lead to some internalization, but it is the satisfaction of the need for autonomy that brings the motivation from merely introjection, which is more controlled, to identified or intrinsic motivation, which is more autonomous (Gagné and Deci, 2005). This relates back to Shamir et al. (1993) in the sense that they also stated that people are self-expressive and want to act in ways that affirm who they are and what they believe in. These findings are also congruent with the findings of Bono and Judge (2003), who found in two studies that transformational leadership was linked to self-concordance at work, which means that transformational leaders are more likely to have subordinates that perceive that work goals are consistent with their personal interests and values. Furthermore, self-concordance at work is positively linked to job performance and attitude (Bono & Judge, 2003). Therefore, a transformational leader promotes an environment that is congruent with the self-concepts of the subordinates, which will make them feel more autonomously motivated. Transformational leaders create such an environment through autonomy supportive behaviours.

A clear comparison can be made between transformational leadership behaviours, and autonomy supportive behaviours as detailed by Baard (2002). Within each component of transformational leadership, specific autonomy supportive behaviours can be found. Such leader behaviours may cause subordinates to feel competent, related and autonomous, which may also cause them to internalize regulations and feel more autonomous and self-determined.

The elements of transformational leadership are congruent with behaviours that promote feelings of autonomy, competence and relatedness in subordinates. As an example, idealized influence and inspirational motivation would include elements such as communicating assertively as opposed to aggressively as a part of effective communication. Another aspect of communicating effectively is demonstrating the congruence between the values behind work behaviour and the values and beliefs of the subordinates as described by Shamir et al. (1993). When this is communicated effectively, an autonomy supportive environment is created because subordinates feel that they are acting in ways that are in line with their beliefs and values, thus making their work more self-expressive and autonomous. This is idealized influence or charisma. In addition to that, a charismatic leader would promote teamwork, minimize gossip thus engendering trust, a central element of idealized influence, and minimize criticism, engendering a feeling of competence. These are all elements of supervisor behaviours identified by Baard to satisfy the three basic needs in order for subordinates to feel autonomy support.

A leader that is inspirational will talk about a vision of where the group should be going, be optimistic about the future and encourage people in their endeavors towards the vision. Inspirational leaders also challenge their people to achieve high standards of performance. In order to do this, they must allow room for subordinates to grow and not be stifled in their progress by having too much structure or pressure from the leader.

Intellectual stimulation would likely include leader behaviours such as permitting failure, engaging in minimal surveillance. Furthermore, a leader that

intellectually stimulates subordinates would likely promote self-discovery and provide challenging work.

A leader that shows individualized consideration would help determine reasonable ambitions, train and support subordinates, and allow self-selection of tasks in order to let subordinates move to areas that interest them the most enabling them to develop in their own way. Individualized consideration would likely also include taking the perspective of the subordinate.

Each of the behaviours mentioned above are as seen in the earlier chart adapted from Baard (2002). It suggests that transformational leaders may exhibit autonomy supportive behaviours, and that the very components of transformational leadership lead to providing an autonomy supportive environment.

**H 1: Transformational leadership will be positively related to autonomous motivation.**

### *Transactional Leadership*

Transactional leadership lends itself more to the extrinsic aspect of self-determination theory. Using transactional leadership encompasses using a performance contingent reward to motivate subordinates. Given that the reward is given on a transactional basis, the motivation to perform is controlled. However, Deci and Ryan (2000) have stated that rewards keep people from pursuing their true interests and quell their ambition. Moreover, Deci and Ryan (2000) stated that a person's extrinsic goals may completely overtake any intrinsic motivation that a person may have had at one



time, causing such person to lose awareness of their basic needs, and pursue only extrinsic fulfillment. In transactional leadership, contingent reward hinges on providing extrinsic rewards as motivation for a completed task (Burns, 1978), which leads to the following hypothesis:

**H 2 (a): Contingent rewards leadership will be positively related to controlled motivation.**

However, it has been stated that both transformational leadership and contingent reward element of transactional leadership are associated with leader effectiveness (Lowe, Kroeck, and Sivasubramaniam, 1996). This indicates that there is a link between transformational leadership and contingent rewards. This link has been documented in other research as well. In their meta-analysis, Judge and Piccolo (2004) found contingent rewards leadership to strongly correlated with transformational leadership ( $r = .80$ ). Therefore, it is hypothesized that contingent rewards will be positively related to autonomous motivation as well. As stated by Amabile (1993), extrinsic rewards can be supportive of intrinsic motivation creating a synergy between extrinsic and intrinsic motivation. The contingent rewards aspect of transactional leadership is measured using wording that describes leader behaviours that are synergistic as well as non-synergistic with employee intrinsic motivation. For example, offering feedback and praise are among the transactional leadership measures. That feedback and praise can be perceived as autonomy supportive by subordinates, thus increasing their intrinsic motivation as well. When an external reward is perceived by

the subordinate as being autonomy supportive, providing positive information about, for example, that person's competence, that perception can increase the intrinsic motivation of that subordinate. In two separate studies correlations between contingent rewards and the transformational leadership subscales were positive (Goodwin et al., 2000; Wofford et al., 1998). Given these studies, it seems as though the contingent rewards subscale may actually measure two factors as opposed to just external regulation types of leader behaviour. As such, contingent rewards leadership has some controlling factors and some ostensibly autonomy supportive factors through its link with transformational leadership subscales.

**H 2 (b): Contingent rewards leadership will be positively related to autonomous motivation.**

As stated, management-by-exception (Burns, 1978) can be thought of as contingent punishment. The leader only steps in to punish an employee when standards have not been met. Management-by-exception can be either active or passive. Active management-by-exception is when a manager is active in monitoring subordinate work for substandard performance and corrects this occurrence. What contingent rewards and management-by-exception have in common is that the subordinate's motivation to act is external for both aspects of transactional leadership. In both cases, the motivation for completing the task is extrinsic and controlled in nature, which leads to the following hypothesis:

**H 3 (a): Active management-by-exception leadership will be negatively related to autonomous motivation.**

**H 3 (b): Active management-by-exception leadership will be positively related to controlled motivation.**

Passive management-by-exception is when a manager waits for performance to fall below desired levels before warning or punishing subordinates for their lack of execution. This style of leadership would not be perceived as providing controlled motivation by all employees because the control is only apparent when things are really going badly, unlike with active management-by-exception. However, there is still an element of punishment for lack of performance. As such, it is believed that there will be no significant relationship between passive management-by-exception and controlled motivation.

**H 4: Passive management-by-exception will be negatively related to autonomous motivation.**

Being a lack of leadership, laissez-faire should be negatively related to almost all leadership styles, as they all have some level of leader involvement with subordinates. However, laissez-faire may be moderately related to passive management-by-exception as subordinates may perceive a manager's not intervening or monitoring until mistakes are made as a lack of leadership. The difference is that passive management-by-exception still has an element of control through punishment

that may be perceived by subordinates. Laissez-faire has no element of control. As such, Laissez-faire is hypothesized to be negatively related to either motivation type because a lack of leadership would likely lead to demotivation.

**H 5 (a): Laissez-faire will be negatively related to autonomous motivation.**

**H 5 (b): Laissez-faire will be negatively related to controlled motivation.**

## **METHOD**

### *Sample*

A sample of 22 leaders and 2 to 3 subordinates per leader were used to conduct this study.

A branch of one of Canada's major banks agreed to participate. There were approximately twenty employees in each branch. Within each branch there was a sales team that consisted of personal bankers who sat in the offices in the branch and there were customer service representatives (or tellers) who worked at the front counter. Tellers did day-to-day banking transactions of customers (e.g. check deposits, bill payments, etc.). Personal bankers did more complex functions that include selling credit products such as a line of credit or credit card, as well as investments such as mutual funds and personal brokerage accounts. The teller side had one manager and the sales side had one or two managers, depending on the size of the branch. The teller manager was called the Manager of Customer Service (MCS) and the personal banking and sales manager was called the Branch Manager. In the case of large branches, the other manager on the sales side was called the Assistant Branch Manager. The Branch

Manager and the MCS in the branch were asked in person whether they would be willing to participate, and they agreed. The subordinates were chosen randomly by drawing names from a hat. The sales staff leader was given a questionnaire as well as three of his direct subordinates to form one group. The MCS was also given a questionnaire as well as her direct subordinates to form another group. 10 leaders from various branches were asked to participate, and only 2 participated. Six subordinates in total (three per leader) participated.

A major transportation company also agreed to take part in this study. The President of this company was interviewed for consent to conduct research within the company. The President agreed to the study in exchange for a report of the findings. Sixteen upper-level managers participated from this company. The President chose all 16 managers and their subordinates. However, as these were upper-level managers, the President stated that these were almost all of the managers at that level. Furthermore, he stated that these people actually only had three to four subordinates. Their jobs ranged from a broad span of business functions such as marketing, finance and so forth. Two to three followers of each of these leaders participated, forming individual groups. Furthermore, these groups were located all across Canada from British Colombia to Nova Scotia. All 16 leaders participated, and 42 subordinates participated as well. However, only 39 participants from this company completed the survey in full, roughly two to three per leader.

Another group came from another Canadian transportation company that specializes in transporting cargo as opposed to transporting people. This group is stationed in Alberta. The leader of that group is middle-management and was contacted

via email to participate in this research. She agreed, and chose her own subordinates to participate. This was not random, but she stated that she only had 3 subordinates that were not on vacation. She was the one leader to participate from that company and she had asked three subordinates to participate, of which only two complied.

Four more groups were taken from the Canadian division of an international beverage company. Three groups were in Montreal and one group was located in Manitoba. The leaders of these groups were middle to upper-level management in the company. These leaders were also contacted through email or by phone. They were referred by a contact within the company. Correspondence with the Manitoba manager was by email, while two of the Montreal managers were contacted mostly by phone. The last Montreal manager wanted to meet in person for a short presentation of the research topic and clarification as to what was required of respondents. Three Leaders participated, two of which had three subordinates complete the survey and one of which had two subordinates complete the survey. Eight Subordinates in total responded from this company.

Overall, 31 leaders were contacted to participate in this survey and 22 participated. Therefore the leader response rate was 71%. It is difficult to assess a response rate based on recruited subordinates. For the leaders who agreed to participate, of the possible 66 subordinate responses, 55 completed it. Our subordinate response rate of 83% is based on those who were under leaders that agreed to participate in this study. When the email was sent out to subordinates, those who were on vacation had an automatic message sent back to the original sender explaining that they would not be in the office until a specific date. Most of those who did not respond to the questionnaire

at all were on vacation until after the research deadline. Those on vacation were nine in total.

### *Demographics*

Of the subordinates, roughly 24% completed the survey in French and, of the leaders, roughly 22% completed the survey in French. 59% of the leaders completed the survey in Quebec, which was followed by 18% of leaders that completed the questionnaire in Ontario. 72% of subordinates completed the survey in Quebec, which was followed by 9% of subordinates that completed the survey in Ontario and 9% that participated from British Colombia. In this sample, 35% of subordinate respondents were women, and 13% of leader respondents were women. Of the leaders, 59% were between the ages of 50 and 59. This is followed by 36% of leaders that are between 40 and 49. However, 41% of subordinates are in the age range of between 40 and 49, which was followed closely by 32%, which were between 50 and 59. Roughly half of subordinates had 21 or more years of experience, which was followed by 25% of subordinates that only had 5 years of experience or less. This was an odd occurrence, as most of the sample of subordinates were either among the most experienced or the most inexperienced. Among the leaders, 72% had 21 years or more work experience at that company, and 22% had between 16 and 20 years of experience at that company. Among the leaders, the educational backgrounds were very diverse. Of the leaders, 36% reported having finished CEGEP and 32% reported to have obtained a bachelor degree. Furthermore, 22% of leaders had a university graduate degree. Among the

subordinates, 53% had obtained a bachelor degree, followed by 25%, which had finished high school and 15% that had finished CEGEP.

### *Procedure*

A survey study was conducted in the 4 companies where leaders and subordinates each completed a questionnaire via the web. The survey was administered once to all participants, and the participants were given two weeks to complete the questionnaire. Leaders answered a “leader” questionnaire and two to three of their subordinates answered a “subordinate” questionnaire in order to determine leadership style and subordinate motivation. The leader questionnaire consisted of a leadership measure, whereas the subordinates’ questionnaire consisted of the same leadership measure as in the leader questionnaire, as well as a motivation measure. The questionnaire was administered online in both French and English using a professional web survey company. It was secure and companies did not have access to data. Respondents were invited to access the survey via an email, which explained how to participate and contained a hyperlink to the survey along with a personal code. The reason for administering the questionnaire online was so that the data collection process could be carried out in a more efficient manner. The use of e-mail served as a means to facilitate further clarification for participants regarding the study and the survey itself. Confidentiality was maintained by assigning each leader/follower group an identification code. The code permitted the identification and analysis of the data collected on a sub-group. I had two e-mail lists per company. One consisted of leaders and the other consisted of followers. Through these lists, I was able to send instructions and reminders to complete the survey. I sent one mass reminder to each company, and



then individual reminders to those who had not completed the survey. A precedent to this way of collecting the data can be found in previous research such as Peterson and Ruiz-Quintanilla (2003).

### *Measures*

#### *Multifactor Leadership Questionnaire*

The leadership measure, completed by the leader and follower, was the multifactor leadership questionnaire (MLQ) form 5x-short (Bass & Avolio, 1989). The MLQ was ordered and came with the French version. It is stated on the MLQ that it was translated into its French version by S. Cacciatore, S. Faulk, F. Perret, and J. Antonakis in August, 2003. The MLQ 5x-short is broken down into one questionnaire for the leader to complete and one for the follower (see appendix one for examples). Both the leader and the follower questionnaire versions consisted of 45 questions. There are four questions measuring each element of transformational leadership and transactional leadership. In the leader version, the leader is instructed to judge how accurate each statement is in describing him/her. In the follower version, the follower is instructed to judge how accurate each statement in describing his/her leader. Each item was answered on a 5-point Likert scale ranging from 0 “not at all,” to 4 “frequently, if not always.” Avolio et al. (1999) found that the reliability of each leadership factor scale ranged from 0.63 to 0.92.

#### *Subordinates*

Among the followers, reliabilities were calculated by breaking down each subscale of leadership for the entire subordinate group, and calculating their respective

cronbach's alpha scores. Contingent rewards scored 0.75, while active and passive management-by-exception and scored 0.82 and 0.70 respectively, and laissez-faire scored 0.71. Those were the subordinate reliability scores for each of the transactional leadership subscales.

A reliability score was determined for transformational leadership by consolidating all of the subscales of transformational leadership to make one scale, and then calculating Cronbach's alpha for it. The reliability for transformational leadership was 0.93.

### *Leaders*

Among the leader reliability calculations, the alphas were smaller, likely due to the smaller sample size. These scores were calculated by consolidating the data for all leaders that participated. Contingent rewards leadership had an alpha of 0.48, while active and passive management-by-exception had alphas of 0.64 and 0.35 respectively. Laissez-faire had an alpha score of 0.50.

Leader alpha scores were also calculated for transformational leadership. The intellectual stimulation score was 0.39, while behavioural and attributed idealized influence were 0.68 and 0.67 respectively. Inspirational motivation was 0.55 and individualized consideration was -0.22.

The reliability for a consolidated transformational leadership scale was 0.73, which is above the acceptable level of a reliability score. Generally, the acceptable Cronbach's alpha score for a scale is 0.7.

### *Motivation Scale*

Only subordinates completed the motivation scale. This scale is from Gagné (2005). This scale was created in both English and French from its creation. Both are under validation and contains 20 items, with five questions for each level of autonomous motivation – external regulation, introjected regulation, identified regulation, and intrinsic motivation. Both French and English versions were used. The motivation scale was created in French and English at the same time and checked for equivalence as it was created. A 7-point Likert scale was used to measure the responses for each item, ranging from 1=“not at all” to 7=“exactly” in terms of the degree to which each statement corresponds to one of the reasons for which each respondent is doing his/her specific job. The alphas for external regulation, introjected regulation, identified regulation, and intrinsic motivation were 0.85, 0.93, 0.86, and 0.95 respectively. Reliabilities for the autonomous and controlled motivation scales were computed by grouping subscales. Intrinsic motivation was averaged with identified regulation to make autonomous motivation, and extrinsic motivation and introjection were averaged to make controlled motivation. The alphas for autonomous and controlled motivation are 0.91 and 0.89, respectively. See Appendix 1 for the items of this measure. The relationship between autonomous motivation and controlled motivation among subordinates was not significant. This was tabulated by testing the correlation between the overall autonomous motivation of the subordinate sample with their overall controlled motivation.

## RESULTS

According to Cohen (1992), there are four variables used in making statistical conclusions regarding statistical power. They are sample size, significance criterion, effect size and statistical power. Cohen stated that these are related. For example, when conducting tests, power can be associated with a given sample size, significance and effect size. If a certain effect size is expected, then Cohen's table can be used to estimate what sample size is needed to have enough power to obtain a significant p value.

Cohen (1992) illustrated that, for a medium effect size at power=.80, and a significance criterion of .10, the sample size needed to obtain a significant p value is 68. For a large effect size, the necessary sample size is 22. Given that this study contains a sample size of 22 leaders and 55 subordinates, that is the standard that will be used in determining that a result is statistically significant. In order to obtain significance at the 0.05 level, I would need 85 participants for a medium effect size. Since there are only 22 leaders and 55 subordinates, only a significance level of 0.10 can be used.

Demographic measures of both the leader and subordinate sample were also taken, however, it is interesting to note that there was no significant correlation between age, education, gender, or years of experience and motivation type nor subordinate perception of leadership style. Analyses were done controlling for demographic variables but no relationships were found. Therefore, based on this study, it cannot be stated that demographics play any role whatsoever in employee motivation or in subordinate perception of leadership style.

### *Data Aggregation*

There are two levels in the data of this research, leaders and subordinates, which means that there are 22 groups to study. For this reason, it is necessary to study the internal consistency of subordinate perceptions within each group. This is done using Rwg (Gerbert, Piske, Baga, Lanwehr, & Kearney, 2006). Gebert et al. (2006) are the precedent for the choice to aggregate in this way for this thesis. The variables were aggregated into their respective groups. For some analyses subordinate ratings could be measured without aggregating, whereas for analyses with leaders or leader vs. subordinate analyses, ratings were measured at the group level.

Means were tabulated for the subscales of the groups. The mean Rwg values for each of the aggregated subordinate variables were .51 for external regulation, .23 for introjection, .55 for identified regulation,  $1.36E+14$  for intrinsic motivation, .78 for contingent rewards, .70 for active management-by-exception, .72 for passive management-by-exception, .58 for laissez-faire, .71 for intellectual stimulation, .80 for idealized influence (behaviour), .75 for idealized influence (attributed), .80 for inspirational motivation, and .66 for individualized consideration. The cutoff is usually .70 for Rwg values. High Rwg values means that there is a high agreement within the group, and low Rwg values means that agreement is low within group. Some of these values are not high enough. Within-group agreement was low for subordinate motivation levels, although it was higher for leadership perception. The reason for this is likely the fact that while the leadership scores entail a few people measuring a single target, the motivation scores entail the self-evaluation of each individual motivational

experience. An analogy for this could be several people observing a red coloured wall. An evaluation of the shape and size and colour of the wall would likely yield a higher group agreement than an evaluation of how the red colour makes each participant feel.

### *Means*

According to the data, intrinsic motivation and identified regulation have the highest means and the lowest standard deviations (see Table 1). This means that most people were highly autonomously motivated and less controllingly motivated. Furthermore, regarding subordinate perception of leadership style, more transformational characteristics of leadership had higher means – 2.39 and above, than all characteristics of transactional leadership except for contingent rewards, which had a mean of 2.89.

It should be noted that all leader self-report means for transformational leadership characteristics were higher than those of subordinates. The leader self-report mean for contingent rewards was also higher. On the other hand, self-reports for active and passive management-by-exception and laissez-faire were either roughly equal or lower (see Table 1). It shows that leaders would rather portray themselves in the light of a transformational, supportive (through contingent rewards) leader.

### *Correlations*

#### *Within-Scale Correlations*

As has been explained, the motivation types are on a continuum. At one end of the continuum is intrinsic motivation, the most autonomous form of motivation, and at

the other end is external regulation, the most controlled form of motivation. Among the subordinate group, the types of motivation were correlated with each other in a quasi-simplex pattern (Gagné & Deci, 2005 (see Table 2)). This means that types of motivation that are closer together on the continuum are more strongly and positively correlated to one another. Conversely, types of motivation that are found further away from each other on the motivation continuum are more and more negatively related (Gagné & Deci, 2005). In other words, the strength of the relationship between subscales weakens as they get further away from each other and become negative when they go from autonomous forms of extrinsic motivation to controlled forms of extrinsic motivation. Therefore, external regulation, the most controlled form of extrinsic motivation, is very negatively correlated with intrinsic motivation, the most autonomous form of motivation. Because identified regulation is a slightly less autonomous form of motivation, the negative correlation between the two is lower. However, there is still a negative correlation since identified regulation is an autonomous form of extrinsic motivation and external regulation is a controlled form of extrinsic motivation. Because introjection is a controlled form of extrinsic motivation, along with external regulation, the two are positively correlated. This supports the idea that these motivation types are on a continuum of motivation types from least to most autonomous (see Table 2). The correlation between subordinates' autonomous and controlled motivation  $r=-0.02$ , not significant. The fact that they are uncorrelated supports the fact that the H2(a) and H2(b) hypotheses can predict a positive link between contingent rewards leadership and both autonomous and controlled motivation. They are completely independent of each other.

Within-scale correlations among leader self-reports revealed relationships. Transformational and contingent rewards leadership are significantly positively related ( $r=0.55$ ) at the 0.01 level. Transformational leadership is also correlated with active management-by-exception ( $r=0.27$ ) at the 0.05 level (see Table 3).

Within-scale correlations among subordinates also revealed relationships. Transformational leadership is also significantly positively related to contingent rewards leadership ( $r=0.73$ ) at the 0.01 level among subordinates. On the other hand, transformational leadership is significantly negatively correlated with active and passive management-by-exception as well as laissez-faire. Laissez-faire is correlated positively with active and passive management-by-exception, but negatively with contingent rewards leadership. Active management-by-exception is correlated positively with passive management-by-exception (see Table 3).

#### *Correlations Between Leader and Follower Perception of Leadership Style*

Leader self-reports and subordinate reports of leadership style were not very closely correlated at all. There were no significant relationships when comparing leaders perception of a leadership style with subordinate perception of that same leadership style. In other words, there is no evidence to suggest that as leaders perceived themselves to be transformational leaders, subordinates also tended to view those leaders as transformational (see Table 4).

There were two significant relationships among these correlations. Leader self-report of laissez-faire was positively correlated with subordinate report of transformational leadership. As leaders perceived themselves to be more laissez-faire,



subordinates perceived them to be more transformational. It is possible that a leader's perception of letting go of some control over work tasks and challenges as being laissez-faire is perceived as transformational (i.e. empowering and supportive) to subordinates. The other significant relationship is the negative relationship between leaders' self-report of active management-by-exception and subordinates' report of passive management-by-exception. In other words, as leaders perceived themselves to use less active management-by-exception, subordinates perceive them to use more passive management-by-exception.

### **HYPOTHESIS TESTING**

As shown in Table 5, H1 was supported in subordinate reports, although there was no significant correlation between leader self-reports of leadership style and employee motivation. In the employee reports of leadership style, transformational leadership is positively, significantly correlated with employee autonomous motivation ( $r=0.26$ ,  $p<0.1$ ). Therefore, H1 was supported by these correlation values.

In the leader self-report data, contingent reward leadership had basically no significant relationship with employee autonomous motivation and controlled motivation. In the employee report data, contingent reward leadership was not significantly related to autonomous motivation and controlled motivation. Therefore, neither H2(a) nor H2(b) were supported.

Active management-by-exception had no relationship with either autonomous motivation or with controlled motivation in the leader self-report. In the employee report data, it had a negative correlation with autonomous motivation ( $r= -0.28$ ,  $p<0.1$ ),

and no significant relationship was found between active management-by-exception and controlled motivation. As such, H3(a) was supported and H3(b) was not supported.

Passive management-by-exception had a significant positive relationship with controlled motivation and basically no relationship with autonomous motivation in the leader self-report data. In the employee report, passive management-by-exception had no significant relationship with controlled motivation and autonomous motivation. Therefore, H4 was not supported. Although it was not hypothesized, passive management-by-exception was found to be related to controlled motivation in the leader results ( $r=0.28$ ,  $p<0.1$ ).

Laissez-faire was found to have no significant relationship with autonomous motivation and controlled motivation in both the leader and the employee report data. Therefore, H5(a) and H5(b) were not supported.

#### *Leadership Style Contribution to Motivation*

The contribution of leadership style in predicting autonomous motivation was tested using multiple regression.

The standardized betas of contingent rewards leadership, active management-by-exception, passive management-by-exception, laissez-faire, and transformational leadership are  $-0.12$ ,  $0.14$ ,  $-0.34$ ,  $0.23$ , and  $0.41$  respectively. However, only active management-by-exception at  $-0.34$  and transformational leadership at  $0.41$  were significant at a level of  $0.05$ . Active management-by-exception had a partial correlation with autonomous motivation of  $-0.29$ , while transformational leadership and autonomous motivation had a partial correlation of  $0.28$ .

The contribution of leadership style in predicting controlled motivation was also tested using the same technique as above. However, none of the leadership styles were significantly able to predict levels of controlled motivation.

There was no finding of multicollinearity between any of the variables as all of the scores for VIF and Tolerance were within acceptable ranges.

## **DISCUSSION**

The purpose of this study was to determine the relationship between leadership and motivation at work. In this study, only three of the possible eight sub-hypotheses were at least partially supported, and two of them were only marginally supported. It was found that there is a positive significant relationship between subordinates' perception of their leaders as transformational and the subordinates being autonomously motivated. This relationship was significant, which, for this size sample, is rather powerful. The more subordinates perceive their leaders to be transformational, the more likely it is they will be autonomously motivated. Although this is not a finding of causality, it is significant. Also, management-by-exception was found to be significantly negatively correlated with autonomous motivation. At the leader level, when leaders perceived themselves to use passive management-by-exception leadership, subordinates tended to have controlled motivation.

Based on these findings it can be stated that transformational leadership and autonomous motivation of subordinates are somewhat related. It has been shown that using a transformational leadership style leads to positive changes in job satisfaction, organizational commitment, and performance (Chen, 2004; Koh, Steers, and Terborg,

1995; Waldman, Ramirez, House, and Putnam, 2001). Studies have also shown a significant positive relationship between autonomous motivation and work persistence and performance (Vansteenkiste, Simons, Lens, Sheldon, and Deci, 2004). One might say that, based on this study, the relationship between transformational leadership and autonomous motivation seems negligible. However, the fact that there is some link between the two coupled with the fact that both of these constructs seem to be very important for achieving business goals point to the relevance and value of further analysis of the relationship between them.

There was some evidence to support the notion that the elements of transactional leadership are related to extrinsic motivation. Essentially, a leader that uses more of an active management-by-exception leadership style is likely to have subordinates that are more controllingly motivated and less autonomously motivated.

In their meta-analyses, Lowe, Kroeck, and Sivasubramaniam (1996) and Judge and Piccolo (2004) stated that transformational leadership is the extension of transactional leadership. Moreover, other research has also found that contingent rewards and transformational leadership have a positive relationship, but that transformational had an additive effect beyond the outcomes of contingent rewards (MacKenzie, Podsakoff, Rich, 2001; Waldman, Bass, Yammarino, 1993). Goodwin et al. (2001), found that contingent rewards was related to both transformational leadership as well as transactional leadership. Future research on the contingent rewards leadership subscale is merited. In effect, it is using transactional leadership, but then going further as a leader to harness the potential of employees and be even more effective in influencing them. To be more specific, it appears that transformational

leadership is actually using and then going beyond the contingent reward element of transactional leadership to influence and motivate subordinates called the augmentation (Bass & Avolio, 1993; Schriesheim, Castro, Zhou, DeChurch, 2006) hypothesis.

Therefore, this research is similar to past findings in the sense that it has also found that transformational leadership has a relationship with transactional leadership, specifically contingent rewards. The major way in which this research adds to the literature is in finding a relationship between transformational and transactional leadership and work motivation theory. Leadership's link to motivation in general can be found in the literature, however, it seems that this research is unique in that it examines links between different types of motivation and transformational and transactional leadership.

It is interesting to note that leaders' means for the self-rating of leadership style were higher across all transformational subscales and on the contingent rewards subscale than subordinates' reports of their leaders. Furthermore, they were either close or lower than subordinates' reports of active and passive management-by-exception and laissez-faire. This shows that leaders tend to consider themselves to be much more of a transformational leader than a laissez-faire or management-by-exception type of leader. They also see themselves as more transformational than their subordinates see them.

There were also fewer significant relationships between constructs when comparing the leader self-report data to subordinate motivation than when comparing subordinate perception of leadership to subordinate motivation. This is likely because it is the subordinate's perception that will have an effect on his/her motivation much more so than the leader's self-perception. If the leader feels that s/he is very transformational, but the subordinate perceives him/her as very much using a passive management-by-

exception style, then the subordinate will most likely be motivated in a controlled way and not autonomously motivated.

### *Limitations and Future Directions*

As mentioned in the first section of this text, testing for the effects of transformational leadership and transactional leadership on predicting motivation of subordinates is research that is still at an exploratory stage. As such, there is much room for future research avenues.

One limitation of this study is the small sample size. This study was carried out during peak vacation months in the summer. As a result, there were fewer available participants. A larger number of participants could potentially have yielded much stronger results. Rather than having only a few findings, there may have been more significant relationships found in the results of this research. Unfortunately, lack of participation due to extenuating factors was a major obstacle to that end. The problem with the small sample size is that the findings of this research are less generalizable. The smaller the sample size, the less representative the results of the study are of the population. In other words, it is possible that some of the non-significant results in this study would be significant correlations if there were more of the population in the sample. There could be more relationships between constructs than we can detect from this data. Furthermore, there is less power in these results because of the small sample size. A larger sample would power to the results because of the fact that more of the population would be represented in the study, so there would be a greater likelihood of accurately identifying relationships. Therefore, a larger sample would add to the

stability of the results. And the more stable the results, the more the findings are replicable.

The fact that the sample was not random produces a selection bias. Of course, the significance of the selection bias is that results may not be what they would have been were everyone to participate in the study. This bias may affect the strength of one or more relationships tested by our regression analyses.

Another consideration is the effect that the broader work group has on each individual in the group. As has been found in previous research, and identified in this text, the process of moving from controlled motivation to autonomous motivation takes place as a consequence of internalization. The point of this research was to determine what relationships leadership might have with motivation at work. Perhaps any influential relationship could be tested longitudinally, as the process of internalization takes place over time. It was expected in this study that transformational leadership would be positively linked with autonomous motivation. This is due to the fact that transformational leadership seems to promote an autonomy supportive environment, given the description of such an environment by Baard (2002), which is supposed to provide the framework for internalization. Transformational leadership has been shown to increase feelings of competence (Menon, 1999), relatedness (House and Shamir, 1993; Sarros et al., 2002) and autonomy (Menon, 1999; Shamir et al., 1993) in the literature. These are the elements that are necessary for internalization, making the subordinate more autonomously motivated as stated by SDT. However, what if the subordinates' peers are an even greater factor in determining whether an environment is autonomy supportive or not? Two of the three elements of internalization are

competence and relatedness. If a leader behaves in such a way as to promote feelings of competence and relatedness among subordinates, this may help a subordinate to internalize behaviour. However, if subordinates had many peers that made them feel incompetent and unrelated, then perhaps the efforts of the leader alone are not sufficient for the subordinates to feel as though they are in an autonomy supportive environment. As a result, the subordinates would not internalize regulated behaviour. In other words, if the key to internalization and, by extension, autonomous motivation is an autonomy supportive environment, then the impact and influence of the leader in creating that environment will likely depend on factors such as the size of the group. If the leader only has two subordinates, then it may be easier to influence they perceive the environment than if there were a larger group of subordinates. Furthermore, it may be that the leader is very charismatic and well liked by everyone in the group, but one subordinate is disliked and not accepted by anyone but the leader. This person will not likely feel very supported, despite the leader's efforts. And this may impact the motivation of the subordinate in question. Therefore, future research should control for group size and have peer reports to see whether there are any effects based on that. In this study, all groups were relatively equal in size, so there was no need to control for that variable. With varied group sizes, it may have been possible to test for differences based on group size.

Another important construct to measure may be personal attributes of the subordinates. Perhaps the most significant might be whether a subordinate has an entrepreneurial spirit. It is possible that a subordinate is in a job merely to save money to start his or her own business in the future. It is possible that, in a situation such as



this, no matter how autonomy supportive the work environment is, an entrepreneurial-minded subordinate would state that they were purely extrinsically motivated in their job (i.e. doing it for the paycheck).

A potential future direction for this research is to look at the effects of transformational leadership and each type of transactional leadership on business-unit performance, and to examine any potential moderating or mediating effects of motivation in this relationship. Howell and Avolio (1993: 891) found that transactional leadership was negatively related to business-unit performance, whereas “3 transformational leadership measures were associated with a higher internal locus of control and significantly and positively predicted business-unit performance over a 1-year interval.” It would likely be interesting for leaders to see how this research affects the bottom line, a consideration most valued by leaders.

### *Implications for Practice*

The most important implication of these findings is that transformational leadership is positively related to autonomous motivation of employees. This is important because, autonomous motivation does have preferable effects on work persistence and performance on the job (Vansteenkiste, Simons, Lens, Sheldon, and Deci, 2004). Therefore, using a transformational style of leadership with contingent rewards may enable companies to break through organizational slowdowns in productivity and/or attain a competitive advantage by leveraging its most important resource - its people.

This may be interesting for companies that are hiring or promoting candidates vying for a leadership position. It may be important to try to determine in the selection process how likely it is that each candidate would be a good motivating force with regards to their subordinates. The selection process may include structured or semi-structured interviews, questionnaires such as the MLQ, personality assessment and the use of assessment centers. In assessment centers, companies can run a battery of tests from interviews, questionnaires, and leaderless group discussions to personality assessment, intellectual capacity assessment, and situational tests (Goodstein & Lanyon, 1999).

## **CONCLUSION**

In conclusion, this research has begun what could be a very fruitful string of research that causes people to look at how leaders can effectively influence the motivation type of subordinates through their leadership style. The present study has determined the relationship between leadership styles and motivation levels of subordinates. And some of these links were consistent with that which was expected and hypothesized. This being the case, there is sufficient reason to continue on in this research and explore what other possibilities lay ahead in linking these two constructs.

It is expected that, with more research, a sound model will develop allowing leaders to be able to accurately predict the motivational effects they have on their subordinates, which may be moderated by other variables. Through these developments, companies will be able to improve their business practices, making them more competitive in their industry and more profitable in the long run.



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## **APPENDIX 1: SAMPLE LEADERSHIP AND MOTIVATION QUESTIONS**

### **FROM QUESTIONNAIRES**

#### **MLQ Sample Questions (Leader Self-Rating Questionnaire)**

1. I provide others with assistance in exchange for their efforts.
2. I re-examine critical assumptions to question whether they are appropriate.
3. I fail to interfere until problems become serious.
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards.
5. I avoid getting involved when important issues arise.
6. I talk about my most important values and beliefs.
7. I am absent when needed.
8. I seek different perspectives when solving problems.

#### **French MLQ Sample Questions (Subordinate Questionnaire)**

9. Parle avec optimisme de l'avenir
10. Mi'insuffle de la fierté d'être associé à elle
11. Spécifie qui est responsable de l'accomplissement des objectifs
12. Attend que les choses aillent mal avant d'agir
13. Parle avec enthousiasme de ce qui doit être accompli
14. Souligne l'importance d'avoir une forte détermination
15. Passe du temps à l'enseignement et au coaching

#### **Work Motivation Sample Questions**

I do this job...

1. For the various social benefits this job provides.
2. Because it affords me a certain standard of living.
3. Because I would feel ashamed if I did not succeed at this job.
4. I chose this job because it allows me to reach my life goals.
5. Because I enjoy this work very much.
6. For the moments of joy this job brings me.
7. Because my reputation depends on it.
8. Because this job provides security.

#### **French Work Motivation Sample Questions**

Pourquoi faites-vous ce genre de travail?

1. Pour les moments de plaisir intense que m'apporte ce travail.
2. Je ne le sais pas, j'ai l'impression que je n'ai pas ce qu'il faut pour bien faire ce travail.
3. Parce que c'est ce type de travail qu j'ai choisi et que je préfère pour atteindre un certain niveau de vie.
4. Parce que j'ai l'impression de m'accomplir en faisant mon travail de façon bien personnelle et unique.
5. Pour les différents avantages sociaux associés à ce type de travail.

**FIGURE 1: CHARACTERISTICS OF 3 BASIC NEEDS**

<b>Autonomy</b>	<b>Competence</b>	<b>Relatedness</b>
<ul style="list-style-type: none"> <li>▪ Optimize subordinate's control/influence</li> <li>▪ Ameliorate internal and external pressures</li> <li>▪ Eliminate excessive rules</li> <li>▪ Allow self-selection of tasks</li> <li>▪ Permit failure</li> <li>▪ Take subordinates' perspective</li> <li>▪ Provide non-controlling feedback</li> <li>▪ Communicate assertively, not aggressively</li> <li>▪ Avoid manipulative incentive programs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Train and support</li> <li>▪ Remove efficiency barriers</li> <li>▪ Goal collaboration</li> <li>▪ Help determine reasonable ambitions</li> <li>▪ Challenging work</li> <li>▪ Helpful feedback</li> <li>▪ Minimal criticism</li> <li>▪ Promote self-discovery of mistakes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hold regular meetings</li> <li>▪ Teamwork and team-building exercises</li> <li>▪ No gossip</li> <li>▪ Share information</li> <li>▪ Rewards supporting cooperation</li> </ul>

*Reproduced from Baard (2002; p.263, 265, 267)*

**TABLE 1: VARIABLE MEANS AND STANDARD DEVIATIONS**

	Subordinates		Leaders	
	Mean	SD	Mean	SD
<b>Motivation</b>				
External Regulation	3.99	1.46		
Introjection	3.57	1.87		
Identification	4.73	1.38		
Internal Regulation	5.14	1.33		
<b>Leadership Style</b>				
<i>Transformational Leadership</i>				
Individualized consideration	2.46	1.14	3.10	0.66
Intellectual Stimulation	2.39	1.10	3.15	0.61
Inspiration	2.79	0.99	3.27	0.66
Idealized Influence (Attributed)	2.71	1.10	3.03	0.57
Idealized Influence (Behaviour)	2.58	1.15	3.13	0.71
<i>Transactional Leadership</i>				
Contingent Reward	2.81	1.07	3.14	0.68
Management-by-exception Active	1.71	1.25	1.73	1.036
Management-by-exception Passive	1.36	1.07	1.18	0.91
Laissez-faire	0.73	1.015	0.30	0.56

N=55

**TABLE 2: WITHIN-SCALE CORRELATIONS (MOTIVATION)**

*Motivation Subscales*

	External	Introjection	Identified
External			
Introjection	0.38**		
Identified	0.07	0.33**	
Intrinsic	-0.36**	-0.14	0.48**

Individual level analysis: N=55

\*\* correlation significant at the 0.01 level



**TABLE 3: WITHIN-SCALE CORRELATIONS**

*Leadership Subscales (Leader Self-Report and Subordinate Report of Leader)*

	Transformational leadership	Contingent reward	Management-by-exception active	Management-by-exception passive	Laissez faire
Transformational leadership		.73**	-.28*	-.36**	-.50**
Contingent reward	.55**		-.12	-.22	-.40**
Management-by-exception active	.27*	-.11		.47**	-.52**
Management-by-exception passive	.24	-.02	-.01		.55**
Laissez-faire	-.15	-.01	-.12	-.08	

Below diagonal is leader self-report

Above diagonal is subordinate report of leader

N=55

\*\* correlation significant at the 0.01 level (2-tailed)

\* correlation significant at the 0.05 level (2-tailed)

**TABLE 4: LEADERS AND SUBORDINATES CORRELATION OF  
PERCEPTION OF LEADERSHIP STYLE**

	Transf. Leadership <sup>†</sup>	Contingent Rewards <sup>†</sup>	M.E. Passive <sup>†</sup>	M.E. Active <sup>†</sup>	Laissez- faire <sup>†</sup>
Transf. Leadership	0.62	-0.02	-0.06	-0.05	0.03
Contingent Rewards	0.05	-0.01	0.01	-0.01	-0.14
M.E. Passive	0.16	0.05	-0.25	-0.11	-0.10
M.E. Active	0.18	0.26	-0.49*	-0.17	-0.33
Laissez- faire	0.42*	0.28	-0.13	-0.38	-0.22

N=22

\* correlation significant at the 0.05 level

†Subordinate reports of leadership style

**TABLE 5: LEADERSHIP RELATIONSHIP WITH SUBORDINATE  
MOTIVATION**

	<b>Employee Autonomous Motivation</b>	<b>Controlled Motivation</b>
<b>Leader Self-Reports</b>		
Transformational	0.19	0.09
Contingent Reward	0.01	-0.17
Management-by-exception, Active	0.02	0.02
Management-by-exception, Passive	0.08	0.28*
Laissez-faire	0.14	-0.06
<b>Employee Reports</b>		
Transformational	0.26*	0.10
Contingent Reward	0.11	0.04
Management-by-exception, Active	-0.26*	0.21
Management-by-exception, Passive	-0.02	0.10
Laissez-faire	-0.03	0.07

N=22

\* correlation significant at the 0.1 level