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Elizabeth Robinson
University of Richmond

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Elizabeth Robinson

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Advisor: Dr. Peter O. LeViness

Introduction

Recent research has investigated a measurable way to determine an individual's motivation to lead in social situations by looking at specific aspects of an individual that make up his/her leadership ability and experience. The MTL (Motivation to Lead) construct is referred to as an individual differences construct that measures a person's motivation to acquire a leadership position based on specific personality traits and values (Chan & Drasgow, 2002). Chan and Drasgow's findings suggest that specific antecedents have calculable correlations to the three types of motivation to lead: Affective/Identity MTL, Non-Calculative MTL, and Social-Normative MTL. For example, Chan and Drasgow reported a high correlation between the Big-Five Personality Trait of agreeableness and non-calculative MTL.

The three types of motivation to lead are based on three dimensions that affect an individual's social behavior. According to Triandis (1980), a person's social behavior is based on the effect associated with the action, the calculative beliefs about the outcomes associated with success, and social norms as they relate to the act. Individuals who are determined to correlate closest to affective-identity MTL simply enjoy leading others. Individuals with a social-normative MTL choose to lead because they feel a sense of responsibility to do so. Lastly, individuals who relate to noncalculative MTL only lead if they are

not conscious of the costs and the benefits of leading and the possibility that the costs may outweigh the benefits (Chan & Drasgow).

In an attempt to determine a construct for an MTL equation, Chan and Drasgow determined certain antecedents for MTL including the Big-Five Personality Factors; conscientiousness, extroversion, neuroticism, openness to experience, agreeableness (Goldberg, 1999), Leadership Self-Efficacy (Feasel, 1995), past leadership experience, Individual-Collectivism (Singelis, Bhawuk, & Gelfand, 1995), and general cognitive ability. The MTL construct functions on the assumption that an individual's motivation to lead within a group is not determined at birth and can change over time with learning and experience (Chan & Drasgow). It was also assumed that personality traits, socio-cultural values, and general cognitive ability functioned as distal antecedents to MTL. Past research points at the theory that leadership experience serves in a more proximal position as it relates to MTL, while leadership self-efficacy has been determined to be even more proximal and a moderator as well. Past research points to evidence suggesting that personality, values, and cognitive ability correlate directly with leadership self-efficacy, which in turn directly relates to MTL (Langston & Sykes, 1997).

Through investigative surveys consisting of these antecedents distributed to Singaporean militants, Singaporean junior college students, and U.S. students from the University of Illinois at Urbana-Champaigne, Chan and Drasgow were able to provide evidence for certain correlations

between the antecedents and an individual's MTL from 3 samples in different occupational and cultural contexts. According to Chan and Drasgow, extraversion, vertical individualism, past leadership experience, and leadership self-efficacy are consistently and directly related to affective-identity MTL and openness to experience is indirectly related through leadership self-efficacy (See Figure 1). Agreeableness, emotional stability, and collectivist values are directly and consistently related to noncalculative MTL. Past leadership experience and leadership self-efficacy were not found to have any correlation to noncalculative MTL. Agreeableness and conscientiousness, vertical individualism, and vertical collectivism, past leadership experience, and leadership self-efficacy are positively related to social-normative MTL. Chan and Drasgow also provided evidence supporting a high correlation between leadership self-efficacy and extraversion, conscientiousness, and past leadership experience in affective-identity and social-normative MTL. Therefore, individuals who are outgoing and reliable tend to be more confident in their leadership abilities.

Contrary to past research performed by Lord, De Vader, & Alliger (1986) and Mann (1959), Chan and Drasgow hypothesized and determined that general cognitive ability was unrelated all three MTL factors. In a research review of several leadership studies conducted by Mann, there was a positive relationship between leadership and intelligence in 88% of the cases. These cases involved a student-aged

population attending college (1959). Mann's articles were the basis for the study conducted by Lord, De Vader, & Alliger concerning leadership perceptions. Their results indicated a positive correlation between the perception of a leader and that leader's level of intelligence. It was also found that individuals with high general cognitive ability were rated by their peers as more capable of leading (1986). In their research paper, Chan and Drasgow indicate that general cognitive ability may have been limited due to the fact that the sample population of Singapore military recruits was limited in its range of cognitive ability. Since the sample consisted mostly of polytechnic graduates, this may have negatively affected the correlation level and significance between general cognitive ability and MTL.

The purpose of this study is to replicate the Motivation to Lead construct developed by Chan and Drasgow on a U.S. student sample in order to affirm or reject the previous findings. Based on the study performed by Chan and Drasgow (2002) and past research on leadership abilities, it is hypothesized that the correlation MTL model revised by Chan and Drasgow will be supported by similar correlations among participants from the University of Richmond population. However, while Chan and Drasgow found there to be no significant correlation between general cognitive ability and MTL, it is hypothesized that due to the possible academic range within the University of Richmond campus and the conclusions of the studies of Mann (1959) and Lord, De Vader, &

Alliger (1986), general cognitive ability (as measured by SAT and ACT scores and cumulative GPA) will be significantly distally related to all 3 types of MTL.

To test the hypothesis that correlations similar to those found by Chan and Drasgow will be found between the determined antecedents and the 3 types of MTL, with the exception of general cognitive ability, a multi-sectioned survey will be administered to a random sample of University of Richmond students via email. This survey will consist of the same components found in Chan and Drasgow's 2002 survey. Using SurveyMonkey, the data collected from the surveys will be analyzed for significance and correlation values. I predicted that general cognitive ability as measured by SAT and ACT scores and cumulative GPA would have a significant impact on all 3 types of MTL that an individual can be determined to have. I also predicted that the other antecedents including personality, values, past leadership experience, and leadership self-efficacy will have similar correlations to the 3 types of MTL as determined by Chan and Drasgow in their 2002 study. The evidence will provide support that Chan and Drasgow's MTL equation is a valid equation to use when determining an individual's MTL. A powerful MTL equation will be able to predict a person's motivation level to take on a leadership role as well as their reasoning for stepping up to lead a group.

Method

Participants

The participants in this experiment were recruited by sending out an email to 300 randomly selected Spidermail addresses obtained from the Registrar office. The experiment involved 36 participants; 12 men and 24 women. All were Caucasian, African-American, Asian-American or Other and between the ages of 18 and 22, and all were students at the University of Richmond.

Procedure

The MTL survey was created in two formats using SurveyMonkey; they each contained the same components but in different orders to control for fatigue near the end of the survey. The survey consisted of mostly Likert-scale ratings and a few open-ended questions (See Figure) The first survey was sent to 150 students; 75 men and 75 women. The second survey was sent to the remaining 150 students; 75 men and 75 women. Each participant was given a link of either the first or second version of the MTL survey within the body of the email that was sent to them asking for their confidential and anonymous participation. A reminder email containing the survey link was sent to all 300 randomly selected email addresses exactly 1 week following the first email.

Results

To find the correlations and beta weights between the distal and proximal antecedents, a multiple regression analysis was run with the dependent variable as each of the three MTL types. Gender and age were entered first in the regression as independent variables followed by the distal constructs in the order of general cognitive ability, personality factors, and sociocultural values. Then the proximal antecedents, past leadership experience and leadership self-efficacy, were entered into the regression. One outlier set of data was removed because the results were significantly offset by the responses.

The Pearson correlation indicated that agreeableness and vertical individualism were significantly correlated with Affective-Identity MTL (p<.05), agreeableness was negatively correlated while vertical individualism was positively correlated. SAT scores were significantly negatively correlated with Social-Normative MTL, and extraversion and conscientiousness were positively correlated. Past leadership experience and leadership self-efficacy were proximally significantly correlated and acted as significant mediators between Social-Normative MTL and age, extraversion, and conscientiousness. Neuroticism and vertical-collectivism interacted with leadership self-efficacy and openness to experience interacted with past leadership experience. Horizontal-individualism correlated positively with Non-Calculative MTL. The standardized coefficient beta weights indicated a significant negative

correlation between SAT scores and Social-Normative MTL. A high significant correlation existed between horizontal individualism and Non-Calculative MTL. A significant beta weight existed between gender and Affective-Identity MTL.

Discussion

The current findings did not support the hypotheses that similar correlations would be found in the sample when compared to Chan and Drasgow's study. It also did not show a significant correlation between general cognitive ability and MTL.

There were significant limitations to the current study due to a small sample population (36 participants). This severely affected the significance of the results and did not provide enough variability to analyze the results. Chan and Drasgow found that extraversion, vertical individualism, past leadership experience, and leadership self-efficacy were consistently and directly related to affective-identity MTL and openness to experience was indirectly related through leadership self-efficacy (See Figure 1). Agreeableness, emotional stability, and collectivist values were directly and consistently related to noncalculative MTL. Past leadership experience and leadership self-efficacy were not found to have any correlation to noncalculative MTL. Agreeableness and conscientiousness, vertical individualism, and vertical collectivism, past leadership experience, and leadership self-efficacy were positively related to social-normative MTL. Chan and Drasgow also provided evidence

supporting a high correlation between leadership self-efficacy and extraversion, conscientiousness, and past leadership experience in affective-identity and social-normative MTL.

The results of this study indicate positive correlations between social-normative MTL and conscientiousness, past leadership experience, and leadership self-efficacy just as Chan and Drasgow found in their study. However, no other similar correlations were found due to the limiting effects of the sample population. Other possible limitations include SAT score inconsistencies between the new and old SAT format and the bias of self-reporting. Self-reported leadership experience and extra-curricular activity involvement could have been exaggerated or misreported during the survey.

Future research on the topic of Motivation to Lead could include expanding on a current study published by Clemmons (2008). As current extensions of the MTL model, Clemmons (2008) examined a specific set of personal values in order to study their effect on Chan and Drasgow's MTL construct. While Chan and Drasgow focused on the range of individualism-collectivism values, Clemmons chose to include spirituality, integrity, willingness to serve, and regard for excellence as well. These four values were rated for their incremental contribution to the MTL construct in order to determine existing correlations between the values and MTL. While spirituality was determined to have a negative effect on overall and affective-identity MTL, integrity was found to have a strongly

positive relationship between overall and non-calculative MTL. This study could be replicated to examine a more extensive definition of general cognitive ability. Further research could also include examining the interaction between MTL and leadership effectiveness as well as leadership performance. Evidence from this future research could possibly indicate a positive correlation between motivation and performance, making MTL a crucial determinant of individual leadership behavior.

The current research has a few real-world implications. Finding a few similar correlations between the antecedents and MTL in this study as compared to the study performed by Chan and Drasgow indicates that the MTL equation may have power in different sample populations. However, there were too many discrepancies between the past study and the current study for the current study to provide further support for the MTL construct.

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Appendix

Figure 1

Chan and Drasgow (2001) devised model of antecedents for 3 factors of MTL.