Research and Theory on the Motivation to Lead: Implications for Officer Selection

Kim-Yin Chan, Kian Chye Ong, Caroline Chah
Applied Behavioural Sciences Department
Manpower Division - Ministry of Defense
Tower B #16-01 Defence Technology Towers
5 Depot Road
Singapore 109681

Summary:

An original theoretical framework for understanding the relationship between individual differences and leadership behavior is described in which a new construct called the Motivation to Lead (MTL) is proposed. A study to develop measures and models for understanding this new construct is then reported. The findings are discussed in terms of their implications for officer selection in the military.

Background

The applied and field research described in this paper is driven by substantive and theoretical concerns related to the process of leadership, leader development, leader selection and training.

Substantively, the roots of this research can be traced to a problem faced by the Singapore military in selecting and training its recruits to become leaders of men. Like several other countries in the world (e.g., Sweden, Taiwan, Israel), Singapore adopts a system of compulsory military service where all male youth have to enlist for military service at the age of 18. Given that military service is compulsory, an interesting problem arises in that the motivation of the soldiers to lead becomes a central issue in the selection and training of junior leaders in the military. The organization has long sought answers to fundamental questions such as "Can we select-for and measure the motivation to lead?" "Can the motivation to lead be changed, for example through training?" and "Does the motivation to lead affect leadership performance?"

Theoretically, it seems that the study of *individual differences and leadership* lacks a good theoretical framework. For example, it remains ambiguous as to *how* personality is related to leadership effectiveness. One possibility is to treat personality variables as substitutes for motivation that interact with cognitive ability to affect leadership performance. Alternatively, the social information processing approach to leadership suggests that personality is possibly relevant in terms of the fit of the leader's characteristics to the cultural expectation their ideal leader.

In a review of the literature, Lord and Hall (1992) called for a reconsideration of the importance of individual differences in explaining leadership behavior. They emphasized that more research was needed that took a multivariate approach to the study of leadership. They also emphasized the need to differentiate among different leadership criteria such as leader perception, leader emergence, and leadership effectiveness. Clearly, a general theory that integrates the process of leader development with leader performance, and one that is multivariate in approach (i.e., differentiating among different predictors and behavioral criteria of leadership) is needed.

Proposed theory

In a recent dissertation, Chan (1999) proposed a theoretical framework for understanding the role of individual differences in the study of leadership behaviors (see Figure 1). A key assumption of the theory is that various non-cognitive ability constructs such as personality and values relate to leader behaviors through the individual's MTL, which in turn affects the individual's participation in leadership roles and activities. It is through such activities that the individual acquires the social skills and knowledge required for leadership (cf. Lord & Hall, 1992, and Zaccaro, Gilbert, Thor and Mumford, 1991). Depending on the situation, these social abilities, together with the individual's general cognitive ability, represent the two potential *resources* (cf. Fiedler & Garcia's, 1987, cognitive resource theory) through which individual differences may interact with situations to affect leadership outcomes.

Proposed MTL Construct

Chan (1999) broadly defined MTL as an area of study of those factors or processes that affect a leader's or leader-to-be's decisions in relation to the assumption of leadership training, roles and responsibilities, his or her intensity of effort at leading, and persistence as a leader of a group. He argued that the factors that affect each of these behavioral criteria include both individual differences as well as situational variables. However, his research focussed at understanding individual differences factors affecting MTL.

Given a lack of prior attempts to conceptualize the structure of MTL, Chan (1999) proposed that MTL may be conceptualized and measured in terms of three correlated factors, namely, Affective/Identity MTL, Non-calculative MTL, and Social-normative MTL. This three-factor model was derived by analogy from Meyer and Allen's (1992) three-component model of organizational commitment that shares conceptual

Paper presented at the RTO HFM Workshop on "Officer Selection", held in Monterey, USA, 9-11 November 1999, and published in RTO MP-55.

similarities with two major theories of social behavior (i.e., Fishbein and Ajzen, 1980, and Triandis, 1980).

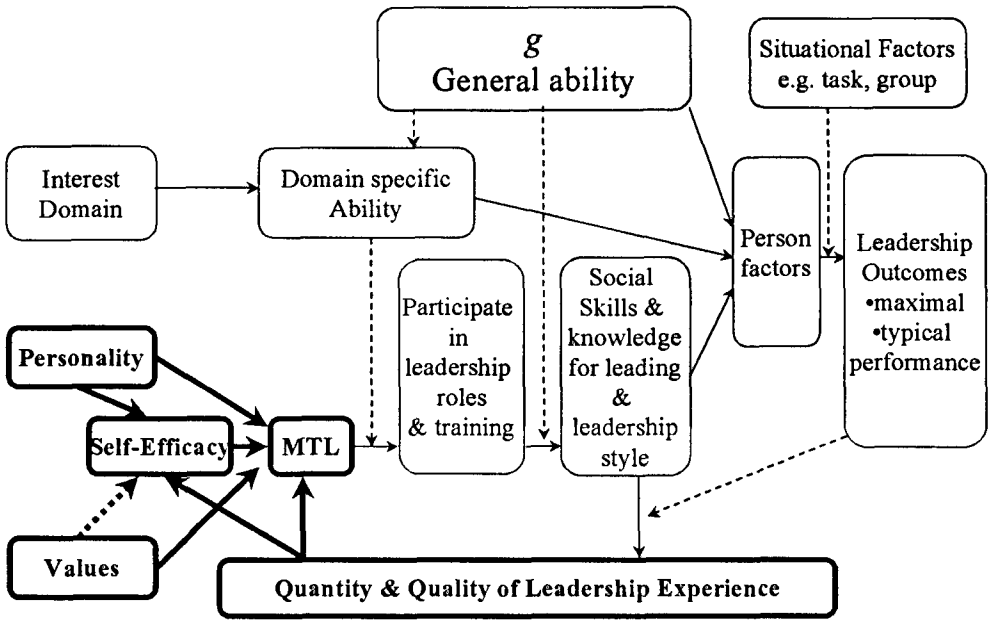

Figure 1. A theoretical framework for understanding individual differences and leader behaviors. (Areas in bold were tested in the research effort)

Research Design

The goals of Chan's (1999) research were to conceptualize and measure individual differences in MTL, and to test a model of those factors affecting individual differences in MTL (see bolded elements in Figure 1). To accomplish these goals, a combination of cross-sectional, longitudinal and cross-cultural surveys was performed. Specifically, a cross-cultural, cross-sectional study was conducted to evaluate the model of antecedents to MTL. Past cross-cultural research (e.g. Hofstede, 1980; Schwartz, 1992) showed that Singapore society is generally collectivist, while U.S. society is highly individualistic. The use of (male and female) students in both countries allowed for a cross-cultural test of the model of factors affecting MTL in generally similar occupational contexts. A 3-month longitudinal within-culture study was also conducted in the Singapore military (male recruits only) to examine the relationship between MTL and various behavioral measures of leadership potential. The criteria were chosen such that there would not be any common-method or common-source variance with measures of MTL and various antecedents. The use of multiple-samples in different work and cultural contexts allowed for determining the external validity of the model of antecedents to MTL, and the structure of the MTL construct.

Analyses

After conducting three pilot studies to develop the measures, exploratory factor analyses of self-report measures of MTL with data from the three samples (i.e., 1594 Singapore military recruits, 274 Singapore Junior College students, and 293 American College students) indicated three different bases for leading, namely, affective/identity, non-calculative, and social MTL. The factors were positively correlated, indicating a second-order, General MTL factor. Confirmatory factor analyses across the three samples showed that the three-factor model fit the data better than a single-factor model. Multi-sample confirmatory analyses showed that the three-factor model was generally invariant across the three samples.

Next, a model of the antecedents of MTL (see Figure 2) which was derived from the theoretical framework in Figure 1 (see areas in bold) was tested. Using a data-driven, hierarchical regression modeling approach, consistencies in the patterns of antecedents to each of the three MTL factors were observed that were reasonable and theoretically justifiable.

A revised, parsimonious model (see Figure 3) was then developed from the findings of the regression analyses, and tested in a cross-validation-type effort using confirmatory factor analyses. Confirmatory modeling showed that the revised model not only fitted the data well, but was also more parsimonious relative to a general model with all possible paths from distal antecedents to MTL. Leadership self-efficacy and past experience were also found to mediate the relationship between various distal antecedents and the MTL factors. Cross-validation showed that the empirically derived model did not capitalize on chance (see Figure 3 for path estimates for one half of Singapore military sample).

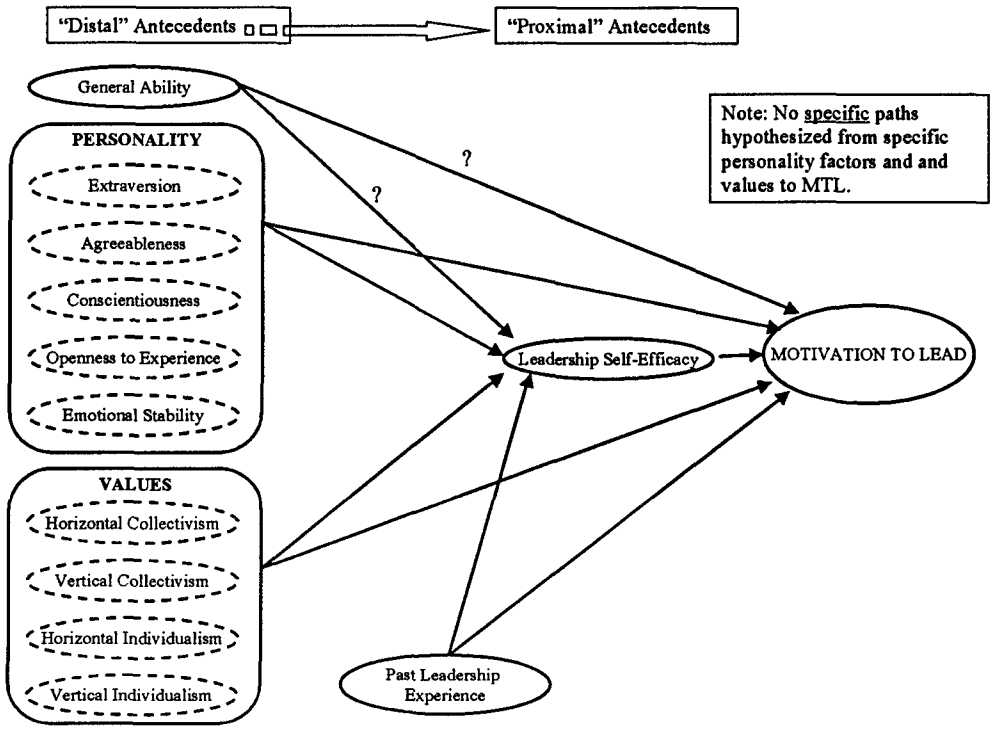

Figure 2. A general model of antecedents to the Motivation to Lead.

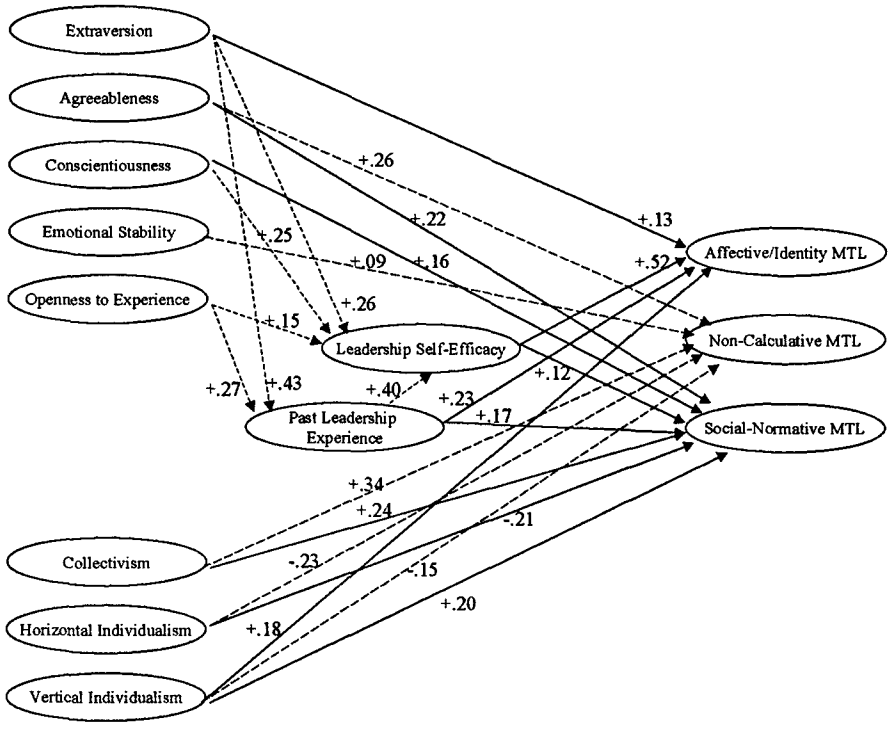

Figure 3. Revised, parsimonious model of antecedents to three Motivation to Lead Factors (path estimates from model fitted to one half of Singapore military sample, $N = 792$; all except two paths significant at $p < 0.01$ level).

Finally, the value of the MTL construct was demonstrated in relation to the prediction of two different multi-observer behavioral criteria in a three-month longitudinal study in the Singapore military. These included a three-day assessment center exercise, and a peer rating exercise conducted at the end of recruit training. Both aimed at determining leadership potential. A predictive validity study of the MTL measure showed that MTL was not only highly related to the two criteria, it also provided large incremental validity over other predictors such as general cognitive ability, values, personality and attitudes.

Summary of Results

Several conclusions can be reached from Chan's (1999) research effort. First, MTL can be conceptualized and measured in terms of three correlated factors, namely, Affective/Identity MTL, Non-Calculative MTL and Social-Normative MTL. Second, personality, socio-cultural values, leadership self-efficacy and past leadership experience are the main antecedents to MTL, while general ability is unrelated to MTL. Third, each of the three MTL factors has their own unique set of antecedents (see Figure 3) that is generally consistent across three samples representing different occupational and cultural contexts and gender groups. This provides construct and external validity to the three-factor model of MTL. Fourth, there exist both direct and indirect paths (through leadership self-efficacy) from distal antecedents to MTL. Fifth, the self-report measures of MTL are related to behavioral measures of leadership potential.

Overall, the parsimonious model of antecedents to Affective/Identity MTL in Figure 3 says that people who like to lead, and who see themselves as having leadership qualities tend to be outgoing and sociable in nature (i.e., are extraverts), value competition and achievement (i.e., are vertical collectivists), have more past leadership experience than their peers, and are confident in their own leadership abilities (i.e., high self-efficacy). Socio-cultural values seem to play a relatively more important role among individuals high in Non-calculative MTL. Collectivistic values are consistently positively related, while individualistic values are negatively related to Non-calculative MTL. Agreeableness and emotional stability are also fairly consistently and significantly related to Non-calculative MTL, while leadership self-efficacy and past experience are not. Individuals high in Social-normative MTL are motivated by a sense of social duty and obligation, and are also accepting of social hierarchies but rejecting of social equality. They also tend to have more past leadership experience and confidence in their leadership abilities.

General Implications of Results

Theoretical significance. Although the present study can be narrowly construed as a construct validation effort, it can also be seen as in initial test of a subset of the broader theoretical framework for leadership described in Figure 1. From this perspective, the study has demonstrated that personality, values and past leadership experience affect MTL both directly and indirectly through leadership self-efficacy, and, that MTL is related to behavioral criteria indicative of the "participation in leadership training and activities" construct. The finding that general ability is unrelated to MTL also provides some support for the distinction between cognitive versus social ability as two different components of the "personal resources" of the leader in Figure 1.

Although existing theories of leadership (e.g., Bass, 1985; Fielder, 1967; Fiedler & Garcia, 1987; House, 1977; Vroom & Yetton, 1973) focus exclusively at predicting the leadership *performance*, Chan's (1999) theoretical framework presented in Figure 1 integrates two different aspects of leader behavior, namely – the leader *development* process and the leader *performance* process. Moreover, the MTL construct as developed and tested in this study is central to the theory of leadership development presented in Figure 1. Hence, the study can be seen as a partial effort at gathering empirical support for the theory of leadership development that forms one half of the theoretical framework presented in Figure 1.

Practical significance. The research on MTL together with the broad theoretical framework of individual differences leadership in Figure 1 present many practical implications for leadership selection, training and development in organizations. The empirical results show that MTL (and its antecedents) assessed at the point of organizational entry is at least predictive of subsequent behavioral ratings of leadership potential. This finding, interpreted in context of the broader theoretical framework in Figure 1, suggests that leadership selection systems should not only try to predict ultimate criteria such as leader performance (which are dependent on many other factors as shown in Figure 1), but should instead try to predict intermediate criteria measured during or at the end of leadership training. Moreover, one can also expect MTL (and its antecedents such as personality, values) to better predict non-task-performance behaviors such as coping and withdrawal behaviors and/or contextual performance behaviors (cf. Borman & Motowidlo, 1993) in such leadership training and development contexts. Future studies should examine non-task-related criteria in order to evaluate the MTL construct.

The finding that leadership self-efficacy and experience are related to MTL also suggests that MTL is not only affected by stable traits like personality, that MTL is a dynamic construct that is partially changeable through social learning processes and experience. This finding is especially useful to large organizations like the military in terms of the design of their leadership development programs. For example, the theoretical framework in Figure 1 suggests that leadership development efforts should (1) provide opportunities for participation in leadership roles; (2) "translate" participation in leadership roles into social skills and knowledge for leading and an acquired leadership style; (3) build leadership self-efficacy from leadership experience.

At a societal level, the empirical results also suggest that leadership development can and should take place

from an early age in school – that leadership training should be designed to enhance the self-efficacy and the trainees' leadership experience and skills.

Cross-cultural. Though including only two nations, Chan's (1999) study tried to present a new perspective to the study of leadership across cultures, i.e. that leader motivation may differ according to differing socio-cultural values. While the individualism-collectivism measure lacked the statistical power to account for cross-national differences in the MTL factors, the finding that leadership self-efficacy was significantly different across cultures, and that it explained the differences in MTL in the U.S. and Singapore, is consonant with cross-cultural theory that the "self" takes on different meanings in different cultures (e.g., Markus & Kitayama 1994). The theoretical framework proposed for individual differences and leadership also presented a possible explanation for how socialization practices affect MTL in different cultures. Further research employing more representative national samples is required to test this proposition.

Situational MTL. As highlighted earlier, MTL can be construed as a broad area of study of both personal and *situational* factors that affect a person's decision to lead, and his or her intensity and persistence while leading. Social psychologists refer to situations in which two or more parties must choose between self versus collective interests as social dilemmas (Pruitt, 1998). At the group, organizational or societal level, one can construe leadership as a potential social dilemma. If the benefits associated with leading are very high, too many people may want to lead resulting in a competitive environment and one with too few followers or "doers" that may eventually be detrimental to the group. If the costs of leading are high relative to the benefits, people may not want to lead and this could also be detrimental to the group in the long run. Hence, research on the situational factors affecting MTL may have important socio-political implications for the future generation of leaders, especially with increasing demands being placed on public leaders for accountability and the loss of privacy experienced by many public figures.

Implications for Officer Selection

Is MTL a useful predictor of officer performance? This is perhaps the most fundamental question in any evaluation of predictors for officer selection. Empirically, we do not yet have data to show that MTL predicts officer performance "on the job". On the other hand, the theoretical framework presented in Figure 1 suggests that the answer to this question is not a simple one. This is because the theory in Figure 1 argues that MTL is only *indirectly* related to leadership performance, and most *directly* predictive of participation in leadership roles and training. The latter affects the acquisition of social skills and knowledge for leading and a leadership style, that in turn represents but one component of the personal resources that a leader brings to a situation to affect leadership outcomes.

Hence, it may be safe to suggest at this point that MTL may be a more useful predictor of participation, performance and adaptation/withdrawal behaviors during leadership training, but not necessarily a good predictor of ultimate (often group-, role-, and situation-specific) leadership performance criteria. More empirical research is however needed to test these hypotheses.

Can the MTL measures be used for officer selection? The self-report measures of MTL developed in Chan's (1999) study were administered in a research context. It is widely known that job applicants can and do fake their responses in a selection context. Hence, it may be premature use the self-report MTL measures for officer selection. On the other hand, the research in this paper shows that assessment center and peer appraisal measures of leadership potential do measure aspects of MTL. Unlike self-reports, assessment centers and peer ratings are less subject to faking. Hence, we recommend the use of these techniques for measuring MTL in a selection context.

Conclusion

Overall, a new approach to the study of leadership has been presented. It includes a multivariate approach to the study of leadership and integrates the process of leader development with that of leadership performance. Such a theoretical integration is useful for large organizations like the military that have to select their leaders, train them, and evaluate their performance. The theory is also radical in that it has brought together constructs from diverse domains of psychological theory to explain the relationship between general individual differences constructs and behavior. It suggests that individual differences constructs are indirectly related to leader performance, that non-cognitive constructs such as personality and values may be linked to leadership performance through the *process* of leadership development. Further research will be needed to test the many general propositions in the theory.

References

Bass, B. M. (1985). *Leadership and performance beyond expectations.* New York: Free Press.

Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, W. C. Borman & Associates (Eds.), *Personnel selection in organizations.* San Francisco, CA: Jossey-Bass.

Chan, K. (1999). *Toward a Theory of Individual Differences and Leadership: Understanding the Motivation to Lead.* Unpublished doctoral dissertation. University of Illinois at Urbana-Champaign.

Fiedler, F. E. (1967). *A theory of leadership effectiveness.* McGraw-Hill: New York.

Fiedler, F. E., & Garcia, J. E. (1987). *New approaches to effective leadership: Cognitive resources and organizational performance.* New York: Wiley.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior.* Don Mills, Ontario, Canada: Addison-Wesley.

Hofstede, G. (1980). *Culture's consequences.* Newbury Park, CA: Sage.

Lord, R. G., & Hall, R. J. (1992). Contemporary views of leadership and individual differences. *Leadership Quarterly, 3*, 137-157.

Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion and motivation. *Psychological Review, 98*, 224-253.

Meyer, J. P. & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resources Management Review, 1*, 61-89.

Pruitt, D. G. (1998). Social conflict. In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed.). New York: McGraw Hill.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-66). New York: Academic Press.

Triandis, H. C. (1980). Value, attitudes and interpersonal behavior. In M. M. Page (Ed.), *Nebraska Symposium on Motivation, beliefs, attitudes and values* (Vol. 1, pp. 195-259). Lincoln, NE: University of Nebraska.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision-making*. Pittsburg: University of Pittsburg Press.

Zaccaro, S. J., Gilbert, K. K., Thor, K. K., & Mumford, M. D., (1991). Leadership and social intelligence: Linking social perceptiveness and behavioral flexibility to leader effectiveness. *Leadership Quarterly, 2*, 317-342