Background Underlying My Dissertation*

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I conceived of the dissertation study while doing my doctoral internship at Norwich University, the nation's oldest private military college. Having taken several graduate courses in statistics, it was apparent to me that the Corps of Cadets organizational structure naturally formed an experimental design. Nine training platoons, identified by the international radio code alphabet (Alpha (*a*), Bravo (*b*), ... India (*i*)) were led by an upperclass Drill Sergeant (DS). Each platoon was divided into three squads, having a Squad Leader (SL) and Assistant Squad Leader (ASL) assigned to each. A diagrammatic visualization of the Corps of Cadets yields the following view of its organization.

Alpha			Bravo			Charlie			Delta			Echo			Foxtrot			Golf			Hotel			India		
DS-*a*			DS-*b*			DS-*c*			DS-*d*			DS-*e*			DS-*f*			DS-*g*			DS-*h*			DS-*i*		
SL a_1	SL a_2	SL a_3	SL b_1	SL b_2	SL b_3	SL c_1	SL c_2	SL c_3	SL d_1	SL d_2	SL d_3	SL e_1	SL e_2	SL e_3	SL f_1	SL f_2	SL f_3	SL g_1	SL g_2	SL g_3	SL h_1	SL h_2	SL h_3	SL i_1	SL i_2	SL i_3
ASL a_1	ASL a_2	ASL a_3	ASL b_1	ASL b_2	ASL b_3	ASL c_1	ASL c_2	ASL c_3	ASL d_1	ASL d_2	ASL d_3	ASL e_1	ASL e_2	ASL e_3	ASL f_1	ASL f_2	ASL f_3	SASL g_1	ASL g_2	ASL g_3	ASL h_1	ASL h_2	ASL h_3	ASL i_1	ASL i_2	ASL i_3

In statistics classes this type of layout is often used to describe plant plots or cultivars. Early development of statistical analysis drew heavily upon the agricultural work of [Sir Ronald Fisher](). The difference is we are dealing with persons, their personalities and performance, and not seeds, location, fertilizer, weather and other farming variables. Nevertheless, the mathematics are the same.

A Ph.D. dissertation not only requires a good experimental design but an a priori theory to predict relationships between the experimental units. Personality of the student officers who made up the training cadre was one variable; the other was their leadership ability, as perceived by their trainees. This is called the Trait Theory of Leadership, which has been much debated and in and out of favor for a century. Prior studies were not conducted with the rigor that was inherent in this one.

Trait Theory of Leadership

Trait theory holds that personality predicts the behavior and performance of persons in a particular job. Trait Theory of Leadership dates back to 1904 when Terman[1] determined that leaders in a student population "are on the average larger, better dressed, of more prominent parentage, brighter, more noted for daring, more fluent of speech, better looking, greater readers, less emotional, and less selfish than the automatons." Terman continued to describe the students in the same unscientific and connotative vein, saying that "leaders are preferred most often for the following qualities, given in order of their importance: intelligence, congeniality, liveliness, and goodness."

Major studies during the twentieth century continued to use fuzzy descriptors of traits. Namely,[2] (1) self-assured, initiating, bright, masculine, decisive, upwardly mobile, unconcerned with job security, and achievement oriented; (2) confident, assertive, forceful, dominant, and actively taking advantage of leadership opportunities; or (3) ambitious, socially assured, persuasive, mentally able, energetic, full of initiative, high status, powerful, and wealthy. As recent as 1997[3] lists of traits were reduced to the following five major traits consisting of intelligence, self-confidence, determination, integrity, and sociability.

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*A complete copy of the dissertation can be obtained through the ProQuest dissertations database.

Such fuzziness makes developing a science difficult. That and the fact that studies often used convenience samples. The need for scientifically valid rigorous research was apparent.

My research provides empirical support for the Trait Theory of Leadership in a specific well constrained situation of a specific command hierarchical organization—a senior military college. Student leaders who made up the three basic training officers or cadre (i.e., drill sergeant, squad leader, and assistant squad leader) of the Corps of Cadets at the Military College of Vermont, Norwich University, were evaluated by their subordinates—new recruits (called rooks) going through initial basic training. Subordinates have been shown to be valid source of leadership ratings.

It was important to circumscribe place, position of the officers, mission, and situation. *Trait Theory findings are <u>not</u> universally relevant.* To haphazardly combine this data into a meta-analysis, as has often been done, would be an unwarranted generalization of specific data.

Meta-analysis

Meta-analysis became a preferred method of evaluating trait theory in the last decade. Increased mathematical sophistication is being applied to prior research that had not tested the same thing and should not be combined. This practice can be metaphorically considered combining apples and oranges as *trait theory is application specific.* Leadership was not the only area where personality was of interest as a predictor. Other specific job categories were investigated, over the years.

At best the meta-analyses have shown weak support for the single variable of conscientiousness [*sic*] and little more. My results have shown Conscientiousness [*sic*] is not always considered desirable and may be a negative factor in a *multivariate* personality trait relationship. Leadership cannot be reduced to a single trait variable. Combining diverse sources cannot develop a valid mutifactor predictive relationship between personality traits and performance. Specific field studies and laboratory experiments are needed that focus on the application specificity of trait theory.

Application Specific Research

An approach to generalizing the Trait Theory of Leadership is to test across a range of command hierarchical organizations; ranging from military colleges, through the military, to police and fire organizations, and on to medical institutions. This approach also might be used to understand how personality traits influence leadership in religious, academic, social work, sales, political, and business organizations, to name a few. In each grouping it will be important to understand the similarities and differences between and among jobs, situations, and missions. A figure at the end of this commentary depicts a layout of an approach to expanding our knowledge.

These considerations were not appreciated by Stogdill, in 1948, and he hobbled research into the Trait Theory of Leadership for 38 years. He said:[4] "The evidence suggests that leadership is a relation that exists between persons in a social situation and that persons who are leaders in one situation may not necessarily be leaders in other situations." This well-known truth should not have been used to devalue trait theory. Two generations of scholars then denigrated trait theory until Lord, De Vader, and Alliger reinterpreted Stogdill's data, in 1986. Now the situation seems to be reversed.

"Groupthinkers" have switched sides. Trait theory is currently taken for granted and scholars discount proposals for new studies as just another correlation looking at a known relationship. A lack of appreciation of the limitations of meta-analysis and isolated correlations has academics discounting research into trait theory as an unnecessary excursion into what is known. It bears repeating: *there are no universal sets of traits that hold for all jobs, in all situations, at all times*.

Universality assumptions are a holdover from great person theory and the divine right of kings and queens. Terman's work was based upon Thomas Carlysle's view of history as "nothing but the biographies of a few great men." Unfortunately, these universal assumptions have gained a hold on students of trait theory and leadership. It appears that academics have a "herd mentality" and research, or lack thereof, reinforces the prevailing view of the academy. I believe it would help social science academics to explicitly state assumptions, rather than to implicitly follow unspoken shared beliefs. If nothing else, explicitly stated assumptions impress upon us that findings have limitations.

Assumptions and Definitions

When I was an engineering student, various professors derived many physical relationships. Prior to each derivation the teachers wrote explicit statements of assumptions they would use. Some assumptions were obviously untrue (e.g., "plain sections remain plane" for the cross section, or slice through a resting beam, after the beam was bent). These were necessary simplifications, however, to handle the sequence of mathematical manipulations carried out on a blackboard. This oft-repeated exercise fosters an acute awareness that our prediction equations are limited by assumptions.

Stogdill acted on an *implicit* assumption and his conclusions were not challenged for almost four decades. Now the pendulum of conformity has swung the opposite way and ideas are unquestioned even when used beyond what has been proven.

Another complication is researchers used terms to describe traits that were more connotative than denotative. Consistent definitions are important. Extraversion [*sic*] and Extroversion were used in this paper and have different meanings, although attention to the two spellings are not always adhered to in the literature. Conscientiousness was capitalized above when it referred to the specific usage in the NEO PI-R personality inventory and not capitalized when less precise usages were combined in meta-analysis. Other terms are less consistent in any usage. Early trait selection was intuitive and relationships were expected. Hypothesis testing is supposed to be unbiased evaluation.

There was a need for a personality profile that could be multiply regressed against leadership ratings; rather than maintaining single bivariate correlations between a trait and a leadership score of some sort. Fortunately, the NEO PI–R assessment instrument is reliable and has been validated during the decade of the 1990s. It was not tied to a theory of personality; although the authors eventually yielded to pressure and proposed an NEO theory of personality.

Tied to transformational leadership theory was the Multifactor Leadership Questionnaire (MLQ). Its authors, Bass and Avolio, had added other transactional leadership constructs and evaluations to the instrument. Consistent with their theoretical underpinnings, in recent years Bass and Avolio have advocated transformational leadership and advised merging transformational and transactional questions of the MLQ. Fortunately, the instrument could still be dissected into transformational plus positive and negative transactional leadership evaluation ratings. This allowed me to show test results that different leadership styles were expected of drill sergeants, squad leaders, and assistant squad leaders. *Positions do matter.* Expectations of drill sergeants leaned toward the transactional and squad leaders were relied upon to provide the emotional or transformational support.

The MLQ had been validated and served my purpose here. Inappropriate questions could be mathematically eliminated, starting with Pearson correlations and verified by inspection. Another questionnaire, the Cadre Leadership Assessment Questionnaire (CLAQ), based upon work of Atwater, Roush, and Fischtal,[5] had more appropriate questions for the situation I researched but did not have established validity as a leadership measure. Future research needs could benefit by the development of a tailored set of questions on leadership that can be utilized across several hierarchical domains and factored for focus and correlated to eliminate inappropriate questions.

Plan for the Future

It is my hope that this dissertation not only conveys a well designed and conducted field study but portrays a preferred *approach and method* as well. The time has come to replace meta-analyses with empirical studies. That is, field research instead of desk analysis. We need to appreciate the limitations on assumptions on theories. Consistent and valid definitions and assumptions must be used. In short, we need to understand the strengths and boundaries on the Trait Theory of Leadership.
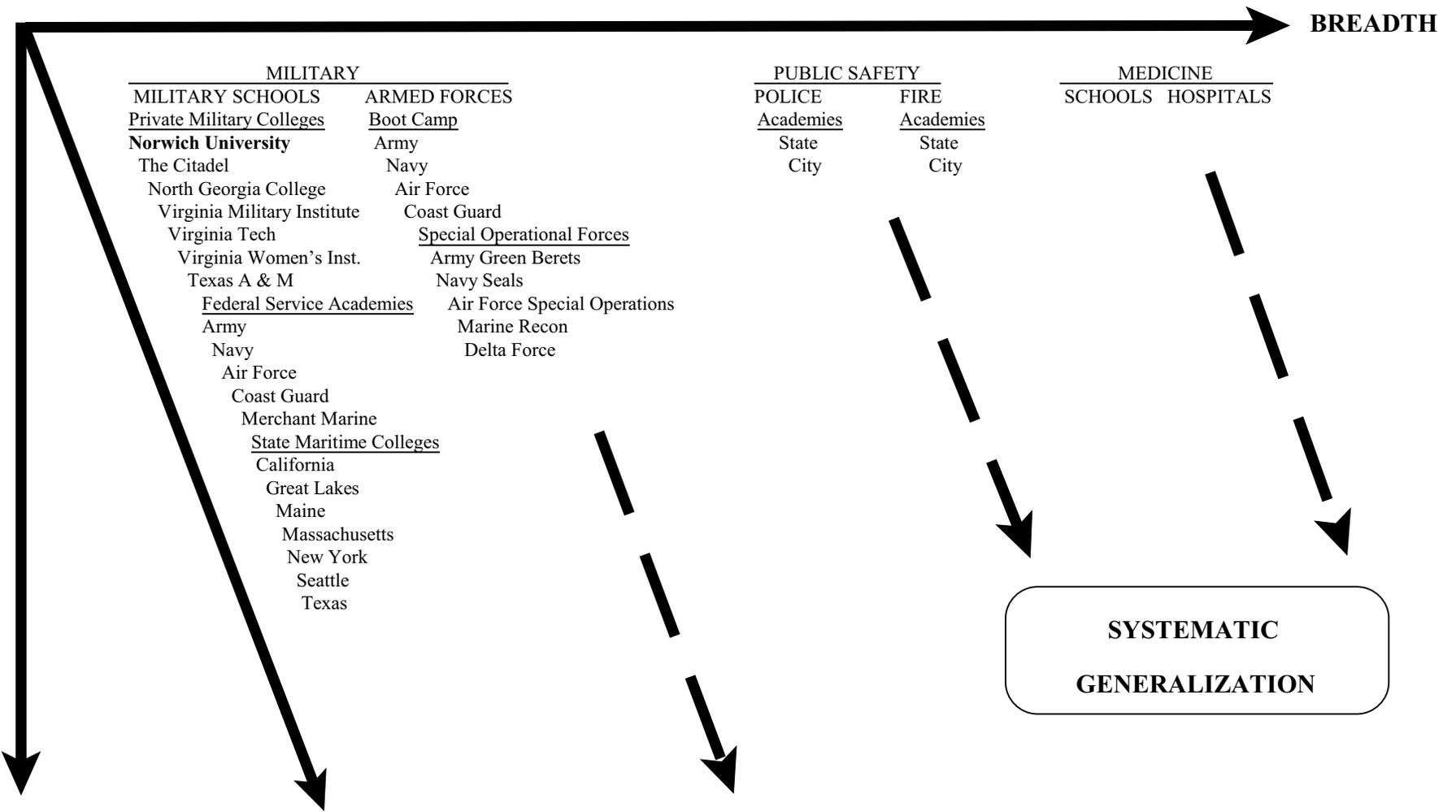
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[1] Terman, L. M. (1904). A preliminary study in the psychology and pedagogy of leadership. *Pedagogical Seminary, 11,* 413-451.

[2] Hogan, R., Raskin, R., & Fazzini, D. (1990). The dark side of charisma. In K. E. Clark & M. B. Clark (Eds.), *Measures of Leadership* (pp. 343-354). West Orange, NJ: Leadership Library of America.

[3] Northouse, P. G. (1997). *Leadership: Theory and practice.* Thousand Oaks, CA: Sage Publications.

[4] Bass, B. M. (1981). *Stogdill's handbook of leadership* (2nd ed.) New York: Free Press.

[5] Atwater, L. E., Rousch, P., & Fishtal, A, (1995). The influence of upward feedback on self-and follower ratings of leadership. *Personnel Psychology, 48,* p.59.

BREADTH

MILITARY

MILITARY SCHOOLS	ARMED FORCES	PUBLIC SAFETY		MEDICINE

MILITARY SCHOOLS   ARMED FORCES   POLICE   FIRE   SCHOOLS   HOSPITALS

Private Military Colleges   Boot Camp   Academies   Academies

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The Citadel   Navy   City   City

North Georgia College   Air Force

Virginia Military Institute   Coast Guard

Virginia Tech   Special Operational Forces

Virginia Women's Inst.   Army Green Berets

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Air Force

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   State Maritime Colleges

California

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Maine

Massachusetts

New York

Seattle

Texas

SYSTEMATIC

GENERALIZATION

DEPTH   **DEPTH & BREADTH**

WITHIN AND ACROSS CATEGORIES AND SUB-CATEGORIES
OF COMMAND HIERARCHICAL ORGANIZATION

Partial Systematic Study Grid for Expanding Understanding of Trait Theory in Command Hierarchical Organizations