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THE RELATIONSHIP BETWEEN PERSONALITY TYPE, CORPORATE CULTURE AND HIERARCHICAL POSITION AND THE USE OF POWER AND INFLUENCE TACTICS IN PROJECT PLANNING

A dissertation

Presented in Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

with a

Major in Education

in the

College of Graduate Studies

University of Idaho

by

David W. Barnes

February, 2003

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DISSERTATION

This dissertation of David W. Barnes, submitted for the degree of Doctor of Philosophy with a major in Education and titled "The Relationship Between Personality Type, Corporate Culture and Hierarchical Position and the use of Power and Influence Tactics in Project Planning," has been reviewed in final form. Permission, as indicated by the signatures and dates given below, is now granted to submit final copies to the College of Graduate Studies for approval.

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ABSTRACT

This study investigated the relation of personality variables (*temperaments, function pairs, and interaction styles*) and cultural factors (hierarchical level and job type/work location) to power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) in project planning situations. The study also examined the relationships between the personality variables and cultural factors.

Results indicated that one of the power and influence tactics, *counteracting*, showed a consistent connection to first-line supervision. The first-line supervisors were likely to use the *counteracting* tactic where higher-level managers (managers and senior managers) showed no connection to the counteracting tactic. Of the interaction styles (*chart-the-course, behind-the-scenes, get-things-going, and in-charge*) those preferring *chart-the-course* were apt to employ reasoning as a power and influence tactic where *behind-the-scenes* and *get-things-going* styles were unlikely to use that tactic. Managers who possess the ST *function pair* were more inclined to practice *reasoning* as a tactic than those favoring NT or SF. The ST *function pair* is most apt to practice the *pressuring* tactic where NF shows no relation to that tactic. The managers who were employed at the corporate headquarters had a higher proportion of intuitive types, particularly NF than would be statistically expected. The SJ *temperament* was significantly more prevalent in field locations than at the headquarters.

Overall, the study revealed several significant differences between field and headquarters personnel, the most apparent difference being that field managers were mainly sensing while headquarters managers were more intuitive. The study also suggested some significant connections between personality preferences and power and influence tactics.

These findings have a number of implications in the areas of human resource development, training, communication, and performance appraisal.

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Lynn Norsworthy, my editor, encourager, and comrade.

DEDICATION

I dedicate this work to my lovely and devoted wife Lynne and to my precious daughter Stephanie who lovingly sacrificed time, self-interest, and much deserved attention in order to support my pursuit of a dream.

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CHAPTER ONE

Introduction

Business literature reveals both interest and concern regarding how organizations are going to function in the twenty-first century (Bender, Neuhauser, & Stromberg, 2000; Kotter, 1996; Tichy & Sherman, 1994). Competition is becoming more keen, the speed of business is faster, technology has an ever increasing place in business, and change is an ever present fact of life (Bardwick, 1995; Fitzgerald, 1997). Oakley and Krug (1994) have noted that we are undergoing a period of change that is a ". . .fundamental transformation of our lives at work and at home, with no letup in sight, no end to the cultural and economic earthquakes" (p. 7).

Complexity is increasing and there is a growing need for managers to function in many different environments (Sehgal & Martin, 2001). In order to address these pressures, leaders must be able to flex and deal with differences between people and environmental forces in new and creative ways (Fitzgerald, 1997). The literature reveals that managers may need to learn a new set of behaviors, yet those leaders may at the same time have a great deal of difficulty changing management style (Chang, 1999; Walck, 1997). Whether changing styles is difficult or not, Walck (1997) suggests that those finding themselves in positions of leadership must learn different management behaviors in order to cope more successfully with their changing world.

Some relevant management behaviors are the power and influence tactics leaders use during project planning (Ludgate, 2001; Yang, Cervero, Valentine, & Benson, 1998). Although there are a number of tactics available to managers, it is possible that they are both

unaware of the different tactics available (Kipnis, Schmidt, & Wilkinson, 1980b), and are predisposed to certain styles and behaviors partly due to their psychological type (Walck, 1997, p. 79).

Even though the Myers-Briggs Type Indicator (MBTI), an instrument designed to identify personality type preferences, has been used by practitioners for more than fifty years, it has received relatively little attention from academic researchers (Fitzgerald, 1997, p. 35). Recently, some work has been done connecting personality type to power and influence tactics used by managers (Ludgate, 2001). An in-depth literature review has revealed little other research seeking to connect power and influence tactics and personality preferences. Power and influence tactics are behaviors exhibited by individuals seeking to exert their power and influence. A complete definition of power and influence tactics is found at the end of this chapter. There is a particular lack of research studying power and influence tactics and *function pairs* or *temperament*, two constructs using the MBTI to predict decision-making style and human behavior respectively (Keirsey, 2000; Keirsey & Bates, 1978; Lang, 1997; Nutt, 1990).

Statement of the Problem

The problem is that research has not yet identified relationships among management behaviors as reflected in power and influence tactics used in project planning situations and factors leading to the choice of those behaviors. Research has not identified which, if any, of the factors examined in the present study (*temperament*, *function pairs*, *interaction styles*, proactivity, organizational hierarchical level, corporate culture) contribute significantly to the

choice of management behavior as reflected in power and influence tactics used in project planning situations.

Significance of the Problem

There is little research connecting management behavior in project planning situations as reflected in power and influence tactics and personality variables such as *function pairs* and *temperament* as measured by the MBTI, or proactivity as measured by the Proactive Personality Scale (PPS). In fact, a search of EBSCO, PsychInfo, Eric, and Dissertation Abstracts revealed two studies directed toward power and influence tactics. Of those, neither dealt with finding relationships among power and influence tactics, *temperaments* and *function pairs*, and other situational variables such as organizational hierarchical level and corporate culture (as influenced by job type/work location). This lack of research impacts leadership development from the practitioner's point of view. Without knowing what influences leaders to choose certain behavioral tactics, it is difficult to design development interventions aimed at changing behavior or adding to a manager's behavioral options in different management situations.

Purpose of the Study

The purpose of this study was to investigate the relationships among certain personality variables (*temperament, function pairs, interaction styles*, and *proactivity*), organizational hierarchical level, corporate culture (as influenced by job type/work location), and certain management behaviors as exhibited through power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*)

used in project planning situations. There were three theoretical constructs and measurement instruments that served as the underpinnings for this study: (a) power and influence tactics measured by the Power and Influence Tactics Scale (POINTS) developed by Yang et al. (1998); (b) personality preferences measured by the Myers-Briggs Type Indicator (Myers, McCaulley, Quenk, & Hammer, 1998); and (c) proactive personality measured by the Proactive Personality Scale (Bateman & Crant, 1993).

Rationale for the Study

The present study extended the work of Yang et al., (1998) and Ludgate (2001) by exploring management behaviors as reflected in power and influence tactics through the examination of additional personality variables (*temperament*, *function pairs*, *interaction styles*, and *proactivity*), corporate culture (as influenced by job type/work location), and organizational hierarchical levels. Like Ludgate's study, this work drew from corporate rather than academic settings. This study examined and isolated cultural issues not available to Ludgate because, unlike the Ludgate research, the managers who participated in this study were all drawn from the same industry (energy) and most were employed by one organization including most of its different business units, subsidiaries, and field locations located in the northwest United States. Other participants were drawn from various worldwide energy-related organizations.

The study of power and power holders has historically been a challenge. Power holders have resisted being studied and prefer secrecy (Kipnis, 1976) for a number of reasons including the perception that the study challenges their authority. The present study

advances the body of knowledge in the area of personality preferences and management behaviors by involving practicing leaders at many levels in a business enterprise.

The Ludgate study primarily examined the relation of personality variables on power and influence tactics and did not consider situational variables other than gender, birth-order, education, and target relationships. According to the literature, not only do both personality and situation have an impact on management behavior, but that more research is needed in order to advance our understanding of the influence various situational variables have on behavior (Ludgate, 2001; Sarason, Smith, & Diener, 1975). In her dissertation written in 2001, Ludgate suggested a need for study within a particular business segment, the energy industry being one possible example.

Function pairs and *temperament* are two constructs relating to personality preference and behavior advanced by researchers and practitioners (Keirsey, 2000; Keirsey & Bates, 1978; Kroeger & Thuesen, 1992). Yet, little research has been conducted considering the relationship between these two constructs and power and influence tactics and no research appears to have been done relating *temperament*, *function pairs*, *interaction styles*, and power and influence tactics as measured by POINTS. Chang found no relation between *temperament* and leadership style, but she did not study *temperaments* and power and influence tactics or leadership behavior (Chang, 1999). We should not assume that leadership style and power and influence tactics are the same construct and thus ignore opportunities for further study based on the results of the Chang dissertation.

Much time and significant resources are dedicated to educating corporate leaders each year. Education programs involving leaders could be designed much more effectively if it were known whether and how cultural factors, hierarchical factors, and personality variables

contributed to the use of power and influence tactics in real business situations such as project planning. Education and training professionals could be better positioned to design effective learning programs if they better understood their audiences and their cultural contexts and personal propensities regarding the use of behavioral tactics. The present study contributes to the existing literature and the understanding of practitioners during project planning activities by offering a quantitative examination of the relationship of power and influence tactics as measured by POINTS and personality variables as measured by the Myers-Briggs Type Indicator, proactivity as measured by PPS, hierarchical level, and cultural differences relating to different work environments in the same organization.

Research Questions

This study was designed to arrive at a description of the relationships among personality variables, power and influence tactics, and work-related cultural factors. The twelve research questions described below guided the study and are as follows:

1) Does the use of power and influence tactics as measured by POINTS vary depending on management hierarchical level within the organization in a manner that is statistically significant?
2) Does the use of power and influence tactics as measured by POINTS vary depending on job type/work location within the organization in a manner that is statistically significant?
3) Does the use of power and influence tactics as measured by POINTS vary depending on *temperament* as measured by the MBTI in a manner that is statistically significant?

4) Does the use of power and influence tactics as measured by POINTS vary depending on *interaction styles* as measured by the MBTI in a manner that is statistically significant?

5) Does the use of power and influence tactics as measured by POINTS vary depending on *function pairs* as measured by the MBTI in a manner that is statistically significant?

6) Does the use of power and influence tactics as measured by POINTS vary depending on level of proactivity as measured by PPS in a manner that is statistically significant?

7) Does *temperament* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

8) Do *interaction styles* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

9) Do *function pairs* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

10) Does *temperament* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

11) Do *interaction styles* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

12) Do *function pairs* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

Research Hypotheses

1) The use of power and influence tactics as measured by POINTS will vary depending on management hierarchical level within the organization in a manner that is statistically significant.
2) The use of power and influence tactics as measured by POINTS will vary depending on job type/work location within the organization in a manner that is statistically significant.
3) The use of power and influence tactics as measured by POINTS will vary depending on *temperament* as measured by the MBTI in a manner that is statistically significant.
4) The use of power and influence tactics as measured by POINTS will vary depending on *interaction styles* as measured by the MBTI in a manner that is statistically significant.
5) The use of power and influence tactics as measured by POINTS will vary depending on *function pairs* as measured by the MBTI in a manner that is statistically significant.
6) The use of power and influence tactics as measured by PPS will vary depending on level of proactivity as measured by PPS in a manner that is statistically significant.
7) *Temperament* as measured by the MBTI will differ depending on hierarchical level within the organization in a manner that is statistically significant.
8) *Interaction styles* as measured by the MBTI will differ depending on hierarchical level within the organization in a manner that is statistically significant.
9) *Function pairs* as measured by the MBTI will differ depending on hierarchical level within the organization in a manner that is statistically significant.

10) *Temperament* as measured by the MBTI will differ depending on job type/work location in a manner that is statistically significant.

11) *Interaction styles* as measured by the MBTI will differ depending on job type/work location in a manner that is statistically significant.

12) *Function pairs* as measured by the MBTI will differ depending on job type/work location in a manner that is statistically significant.

Null Hypothesis

The following null hypothesis was tested in this study: There is no significant relationship among power and influence tactics and the examined personality and situational variables (*temperament*, *function pairs*, *interaction styles*, proactivity, organizational hierarchical level, corporate culture). Nor is there any significant relationship between the situational variables examined in the present study. The null hypothesis was tested for rejection at the alpha level of .05.

Limitations of the Study

The following uncontrollable factors were considered in order to conduct this study:

1) The survey questions in both instruments are self-report. The participants may have answered the questions in an inconsistent or unpredictable manner. The participants may have been occupied with other concerns and may not have considered the questions adequately before offering their answers.

2) Many of the participants answering these surveys have recently participated in a company-wide leadership assessment that some perceived to be threatening. The

leaders, though assured that the instruments were to be held confidential, may have projected that the study was in some way related to the leadership assessment and would therefore answer the questions in an inconsistent or unpredictable manner.

3) It is common for corporations to have cultural expectations. The participants may have answered the questions in a way consistent with corporate cultural trends or other perceived expectations and not in a manner reflecting true preferences.

4) Some of the participants may have previously completed the survey instruments thus presenting the possibility that in those cases the results may be somewhat less reliable.

Delimitations of the Study

The following limitations were intentionally imposed in order to conduct this study:

1) The primary participants in this study were mainly members of one energy-related corporation located primarily in the northwest United States. Because of this limitation, the generalizability of the study may have been reduced.

2) The instruments chosen for this study measure specific constructs of personality (Myers-Briggs) and power and influence tactics (POINTS). The use of other instruments may have lead to entirely different results and conclusions.

3) Form M of the Myers-Briggs Type Indicator was used in spite of the fact that Nutt (1990) prefers form F because he believes it is superior for business applications. But form F was produced in the early 1970s and form M is now the standard form of Myers-Briggs and benefits from many years of research not available when form F was produced (Myers et al., 1998).

4) The participants in this study were attending leadership development workshops at the time of their participation. All of the participants were informed that their involvement in the study was strictly voluntary and they were given an opportunity to return the uncompleted research materials anonymously.

Assumptions

The following assumptions were made in order to conduct this study:

1) Project planning is representative of management behavior and is indicative of management behavior in a variety of situational contexts.
2) *Function pairs, temperament*s and *interaction styles* as measured by the Myers-Briggs Type Indicator adequately measure the participant's decision-making and behavioral preferences.
3) Project planning behaviors can be adequately measured by the participant's responses to the POINTS survey.

Operational Definitions

Agent: An agent is "a rational decision maker who weighs various costs and benefits of the power bases available to him/her before invoking one of them to influence the target" (Bruins, 1999, p. 9).

Behavior: For the purpose of this study, behavior refers to a manager's outward actions directed toward others. Especially, it relates to the outward manifestations of the use of the seven power and influence tactics measured by POINTS. Further clarification

of those behaviors is found in the Power and Influence Tactics heading of this Operational Definitions section.

Corporate Culture: "The personality (sic) of the organization." It is "the way things are done around here." Examples of corporate culture are the Hewlett-Packard (HP) or IBM way (Bender et al., 2000, p. 4). Bolman and Deal (1997, p. 217) add clarity and substance to the concept of corporate culture. "Culture is both a product and a process. As a product it embodies accumulated wisdom from those who came before us. As a process, it is continually renewed and re-created as newcomers learn the old ways and eventually become teachers themselves."

CHQ: CHQ is an abbreviation for Corporate Headquarters alternately known as head office or main office.

Earning Culture: Earning culture is one that values fast-moving, high-energy, risk-taking behaviors (Bardwick, 1995, pp. 55-57).

Entitlement Culture: An entitlement culture is one where "people feel entitled when they have so much security that they don't have to earn their rewards" (Bardwick, 1995, p. 22).

Function Pairs: According to Jungian personality theory, we obtain information through sensing and intuition. We evaluate data through thinking and feeling. These four dimensions are called functions. When combined, they result in four combinations of functions called *function pairs*. The *function pairs* are: "Sensing Thinking (STs), Intuition Thinking (NTs), Sensing Feeling (SFs) and Intuition Feeling (NFs)" (Haley, 1997).

Influence: Influence is something people do rather than something people have (B. K. Barnes, 2000). "Influence is the socially induced modification of a belief, attitude, or expectation without recourse to sanctions" (Willer, Lovaglia, & Markovsky, 1997)

Interaction Styles: " Interaction Styles are based on observable behavior patterns that are quite similar to the popular social styles models and DISC®. Interaction Styles tell us the 'how' of our behavior. They refer to patterns of interaction that are both highly contextual and yet innate"(Berens, 2001, p. 33). The Interaction Styles and their corresponding MBTI types are listed in the following table.

Table 1

The four Interaction Styles and their corresponding MBTI Types

Interaction Style	MBTI Types
Chart-The-Course	INFJ, ISTJ, INTJ, ISTP
Behind-The-Scenes	INFP, ISFJ, INTP, ISFP
In-Charge	ENFJ, ESTJ, ENTJ, ESTP
Get-Things-Going	ENFP, ESFJ, ENTP, ESFP

Job type/work location: This phrase was used consistently throughout the present study. Job type/work location referred to the general separation of duties between field locations and corporate headworkers within the utility. The headquarters personnel were mainly administrative managers. The field managers were involved with construction and maintenance activities. The headquarters managers mainly supervised "white collar" workers where the field managers supervised primarily "blue collar" workers.

Power: Though it is difficult if not impossible for most researchers to agree on a definition of power (Kipnis, 1976), a definition must nonetheless be used for this study.

According to The Oxford English Dictionary (Simpson & Weiner, 1989) power is the "ability to do or effect something or anything, or to act upon a person or thing" (p. 259). Power is "authority given or committed; hence, sometimes, liberty or permission to act" (p. 259). "Permission to act" is a key phrase because it indicates that power is granted or conferred upon the one in the power position; therefore this study carries forward this concept and adds to it the idea that power is "the ability of one person to affect the balance of rewards and costs of the other party" (Kipnis, 1976). Very simply put, power is "basically the capacity to get things to happen" (Bolman & Deal, 1997, p. 165).

Power and Influence Tactics: Yang defined the seven dimensions of power and influence measured by his POINTS instrument (Yang, 1996). The POINTS model actually includes eight dimensions, but since Yang found that bargaining and exchanging were not found to be significantly different, only bargaining is listed in the following table (Table 2).

Table 2

Definitions of the Seven Power and Influence Tactics used in POINTS

Tactics	Definitions (Behaviors)
Reasoning	The planner uses persuasion, logic, or actual evidence with the co-planner in order to gain influence over the planning process
Consulting	The planner seeks input and ideas from the co-planner in order to gain influence over the planning process
Appealing	The planner appeals to the emotions, predisposition, or values of the co-planner in order to gain influence over the planning process
Networking	The planner seeks to obtain the support of other people who are important to the co-planner in order to gain influence over the planning process

Definitions of the Seven Power and Influence Tactics used in POINTS (Continued)	
Bargaining	The planner offers to exchange things the co-planner values (or refers to past exchanges) in return for influence over the planning process
Pressuring	The planner makes direct demands of or threats to the co-planner in order to gain influence over the planning process
Counteracting	The planner takes willful action (or willfully refuses to take action) that nullifies efforts of the co-planner, in order to gain influence over the planning process.

(Ludgate, 2001, p. 11)

Project Planning: For the purpose of this study, project planning is the planning activity that takes place within the confines of a definable project involving the participant and at least one other person.

PUEC: PUEC is an abbreviation for Positioning Utility Executives for Change. PUEC is an annual month-long management development workshop held at the University of Idaho Moscow campus.

Target: The target is the individual or group of individuals to whom the power and influence tactics are directed by the agent (Bruins, 1999; Kipnis, 1976).

Temperament: *Temperament* is a special two-letter combination of Myers-Briggs letters that are especially helpful in predicting behavior (Kroeger & Thuesen, 1992; Myers et al., 1998).

The following chapter is a review of the literature that forms the underpinning for this study. The instruments used for the study are introduced and explained. Key concepts being measured or explored are clarified. Seminal work done in areas directly influencing this

study are documented, and the need for further research like that being conducted in the present study is established.

CHAPTER TWO

Review of the Literature

The purpose of this chapter is to present a review of the literature dealing with the behavior and personality preferences of individuals, especially those holding management positions. The chapter begins with a review of the literature related to managerial traits and behaviors. The examination of literature then investigates situational leadership, the research around leadership behavioral shifts depending on various situational variables. A discussion of corporate culture as it impacts managerial behavior is addressed introducing yet another variable into the mix that presses upon management decision-making. The first section also examines power and influence behaviors of managers concluding with a review of power and influence tactics scale development. This chapter changes focus as it emphasizes personality preferences and how those preferences influence behavior. There is considerable attention paid to personality measurement instruments and personality theory with special attention paid to the instrument used in the present study. The conclusion of this chapter summarizes the relationship of managerial behavior, personality preferences, and situational considerations. With all of these factors in mind and in light of suggestions offered by a number of researchers, a justification of the present research study is presented.

Managerial Behavior, Situational Leadership, and Planning

Early in the twentieth century French industrialist Henri Fayol posited that all managers perform five essential functions; planning, organizing, commanding, coordinating, and controlling (Fayol, 1984). Those functions did not change much when Peter Drucker

(1974) described his five functions of management: (a) sets objectives, deciding on goals, how to reach the goals, and communicates to those responsible for accomplishing goals; (b) organizes, breaking jobs down into manageable parts, groups the parts logically, assigns people to the tasks of accomplishing and manages the parts, (c) motivates and communicates, both upwardly and to those below, attending to personnel matters, and forming a team of workers; (d) decides on measurement criteria; analyzes and evaluates performance; communicates the results of these activities; and (e) develops people by giving others, including himself, the opportunity to grow and to thrive. Later, Robbins (1998) asserted that the basic functions of management could be condensed to only four: planning, leading, organizing and controlling. In the end, Fayol, Drucker, and Robbins all include a planning function, whether implied or directly stated, as essential to management. The planning function, and the behaviors supporting that function, are central to the thrust of this study.

Though there are a number of actions that are common to the practice of leadership, those behaviors are not routinely used in every situation, in every corporate culture, or by every manager. The phrase "situational leadership" is used to describe the practice of using different management techniques and behaviors depending on the developmental level of the follower (Blanchard, Zigarmi, & Zigarmi, 1987; Hersey & Blanchard, 1977). Hersey and Blanchard (1977) have identified directing, coaching, supporting, and delegating as the four leadership styles that a manager may choose to implement depending on the situation. The gist of situational leadership is simply that one treats different people differently depending on the situation at hand. In fact, one study indicated it is not only helpful to treat people differently, but also that employees prefer to be led by people with styles similar to their own, even though leaders and their natural styles and tendencies are quite different (Keller,

1999). By intentionally varying leadership style then, the leader may more effectively lead in ways that are comfortable to those being led. Writing in the context of administrators in a school system, Blanchard et al. (1987) states that "Principals must not only know how to vary their leadership styles, but when to change styles to fit the responses and capacities of their teachers" (p. 16).

Bolman and Deal (1997, p. 299) agree that the exercise of leadership varies depending on the situation. The situation may have to do with the target's developmental stage, comfort level, the hierarchical level of the supervisor, or the broader context of societal norms and expectations. "Almost everyone believes that widely varying circumstances require different forms of leadership, but research is still sparse" (Bolman & Deal, 1997, p. 300).

Just as leadership style may vary depending on a present follower related requirement, there is evidence in the literature that managers vary their tactics or approaches to a management problem somewhat depending the manager's objectives (Yukl, Guinan, & Sottolano, 1995). The Yukl et al. (1995) study demonstrated that not only did managers vary their tactics depending on the current objective, but they did so depending on their level in the management hierarchy. Additionally, the supervisors studied typically used one set of tactics to assign tasks to their subordinates, but used a different approach when seeking support from their superiors.

Managers, then, learn to analyze the context of the problem they are trying to solve or situation demanding their attention, and vary their approach depending on a number of factors. Those factors include the nature of the problem, the relationship to the target of their behavior, and the manager's position within the organization.

Corporate Culture and Managerial Behavior

The literature indicates that there is more involved in the behaviors and choices of tactics used by managers than the current situation or developmental level of the follower. Bardwick (1995) identified two overarching types of organizational cultures. The "earning culture" is one that values fast-moving, high-energy, risk-taking behaviors. This culture is commonly found in start-up organizations or companies that find themselves faced with intense competition and a need to move quickly and change rapidly. The contrasting "entitlement culture" is often found in older, more stable, slower-moving, traditional enterprises. The behaviors of managers and followers in these two cultures are vastly different.

Waldersee and Sheather (1996) offer a model similar to that described by Bardwick by naming two distinct and radically different management strategies: conservative, and entrepreneurial. Conservative strategies, they concluded, are prone to management by "commanding through the exercise of power and authority, secure control over the organization's resources" (Waldersee & Sheather, 1996, p. 119), and other characteristics of traditional top-down management. Entrepreneurial strategies are more concerned with joint decision-making and open communication while remaining open to and gaining skill in rapid business restructure.

Corporate culture may also have much to do with the use of power in organizations, at least as far as it concerns the behavior of first-line supervisors (Atwater, 1995). The Atwater study looked at organizations that were more or less specialized and more or less formalized and found that there was a significant difference in the use of power by first-line supervisors due to organizational characteristics.

We have seen that leadership behaviors and strategies may vary depending on the situation demanding their use. We have also seen that corporate culture may play a significant part in determining how managers behave and the type of power they choose to employ. But what is power? Is there a difference between power and influence? How do managers exert their power and how do they influence others with whom they have business relationships?

Power and Influence Defined

According to The Oxford English Dictionary (Simpson & Weiner, 1989) power is the "ability to do or effect something or anything, or to act upon a person or thing" (p. 259). Power is "authority given or committed; hence, sometimes, liberty or permission to act" (p. 259). In an issue of *Marketing* naming the 100 most influential people in marketing (Smith, 2001), the lead paragraph offers a more business-oriented perspective on power.

> Power, an eternally sought-after, but often elusive, trophy, comes in many forms. Money has always been closely linked with power, but does not define it. An individual's sphere of influence, degree of fame, aptitude in their field, and ability to be creative, inspired and indeed, inspirational, all define just how powerful they are.

In a study which sought to determine whether power produces influence, or influence produces power (Willer et al., 1997), another definition of power was offered. To those researchers, power is "the structurally determined potential for obtaining favored payoffs in relations where interests are proposed. It is the executive's position that gives her power

over the employee, rather than anything intrinsic to the person occupying the position" (p. 573).

So, according to some, power could be fame, or attitude, or position, or authority. To others, power could be something as relatively nebulous as "relationship" or the position of dependence one party has on another (Frooman, 1999). When one begins thinking of power as relationship, it seems reasonable to investigate the meaning of influence because the dynamics of a relationship surely include the influence one may have regarding the other.

The distinction between power and influence can be subtle. For instance, The Oxford English Dictionary (Simpson & Weiner, 1989) defines influence in the following way:

> The capacity or faculty of producing effects by insensible or invisible means, without the employment of material force, or the exercise of formal authority; ascendancy of a person or social group; moral power over or with a person; ascendance, sway, control, or authority, not formally or overtly expressed. (p. 940).

The same dictionary, when defining power, states that power is "personal or social ascendancy, influence" (Simpson & Weiner, 1989). Moral power, informal exercise of authority and voluntary compliance seem to be identifiers of influence.

Power and influence were both defined when Barnes (2000) offered the following definition: ". . . we will consider power to be something you have and influence to be something you do" (p. 9). When describing influence, Barnes identified two distinct types: receptive influence and expressive influence. Inquiring, listening, attuning, and facilitating characterize receptive influence. Expressive influence is telling, selling, negotiating, and enlisting. Another practical distinction between power and influence is that "power is the

ability to get things done against opposition. . . . and influence is power in use" according to Jeffrey Pfeffer as quoted in *Communication World* (Pierce, 1996, p. 2).

When they stated their definition of influence, Willer et al. (1997) said, "We define influence in a way that clearly distinguishes it from power. Influence is the socially induced modification of a belief, attitude, or expectation without recourse to sanctions" (p. 573). So to this author there is little distinction between power and influence except that in the case of power, one has the option of enforcing wishes or requirements. Influence does not include the option of enforcement.

Some researchers choose not to make an issue of or even recognize a difference between power and influence. Brass and Burkhardt (1993) have observed that the difference between power and influence is essentially an academic exercise. Though scholars may find meaning in ferreting out the fine points of the difference between the two concepts, "such distinctions are not common in everyday usage of the words" (p. 463).

Brass and Burkhardt (1993) made a logical and appealing argument that there is little popular difference between power and influence. Still, there is substantial and useful evidence in the literature that such a distinction should be made (French & Raven, 1959; Hinkin & Schriesheim, 1990; Stahelski & Paynton, 1995; Willer et al., 1997). Though power and influence are distinctly different concepts, nevertheless they appear to be very closely linked (Lacayo, 1996), so the present study will concentrate on the categories and behavioral indicators of both power and influence.

Power and Influence Categories and Behaviors

Perhaps the earliest and best known taxonomy of power comes from French and Raven (1959) when they developed what they considered to be five common and significant bases of power. According to French and Raven the bases of power are: (a) reward, one has the ability to reward another; (b) coercive, one has the ability to punish another; (c) legitimate, one has the right to influence another and the other has an "obligation to accept this influence" (French & Raven, 1959, p. 159); (d) referent, one identifies with another where there is oneness or a desire to feel oneness; and (e) expert, one is perceived to have "special knowledge or expertise" (French & Raven, 1959 p. 156).

Barnes (2000) has developed a separate but similar list of power sources. The Barnes list includes the following: (a) formal; (b) delegated; (c) information; (d) reputation; (d) relationships; (e) moral authority; and (f) personal power (confidence and commitment). According to Barnes, influence uses the sources of power to move others, and it does so in a way that is respectful of the ones being influenced.

The relationship between power and influence starts to come together when the two constructs are put into practice. A list of means for implementing influence was developed some twenty years ago and include the following tactics: (a) assertiveness; (b) ingratiation; (c) rationality; (d) exchange; (e) upward appeal; and (f) coalition formation (Kipnis & Schmidt, 1988; Kipnis, Schmidt, & Wilkinson, 1980a). These tactics were studied by Brass and Burkhardt (1993) while attempting to relate influence tactics to organizational power as demonstrated by hierarchical level. They concluded that some of the tactics were related to position in an organization (assertiveness), and others (ingratiation and rationality) were generic and accessed by people at all levels. Not only are different influence tactics often

used by individuals based on hierarchy, different tactics are also employed depending upon the intended result (Bruins, 1999). According to Bruins, there are at least five different outcomes that might be sought when using the various tactics: (a) uncertainty reduction; (b) expected opposition; (c) desire to be liked; (d) assertion of group membership; and (e) cognitive consistency.

Just as different influence tactics are used by individuals at different levels of an organization and by the same individual in different circumstances, power bases are also the tools of management personnel. Ideally, managers should possess multiple bases of power (Hinkin & Schriesheim, 1989). In fact, organizations could benefit by improving power profiles through scrutinizing and assigning meaningful titles (legitimate power) and improving leader competencies (expert power) by means of leader education (Palich & Hom, 1992).

Directional Use of Tactics

Several studies have been conducted exploring the directional use of tactics (Brass & Burkhardt, 1993; Michael & Yukl, 1993; Stahelski & Paynton, 1995; Yukl & Tracy, 1992). And while the studies showed that power and influence tactics are used directionally within an organization, there are some individuals who have greater choice in the tactics they can elect to use because of their position in the corporate hierarchy (Koslowsky & Schwarzwald, 1993). Executives have more power and greater control of resources than those who find themselves lower in the hierarchy. Consequently, people who were perceived as having higher status used a greater variety of influence strategies and tactics than people who were perceived as having lower status (Koslowsky & Schwarzwald, 1993). This idea seems to be

supported by the work of Cialdini (1993) who determined that, regarding authority, humans have a tremendous propensity to comply with the wishes of authority figures. Not only does this tendency translate into acquiescence, it also appears to increase the power and influence of leaders. Being perceived as a leader allows one to exert greater influence, whether in business or government, and leadership perceptions are particularly important within the political arena (Lord, De Vader, & Alliger, 1986).

There are certain symbols attached to authority figures that allow us to identify authority figures, those symbols are (a) titles, (b) clothes, and (c) trappings (Cialdini, 1993). Regarding the use of titles, not only do these allow us to identify leaders, titles also support the organization in its attempt to establish legitimate power (Palich & Hom, 1992).

Sometimes influence tactics are used by individuals who are in a subordinate relationship (Maslyn, Farmer, & Fedor, 1996; Wayne & Gerris, 1990). One study (Maslyn et al., 1996) showed that factors such as perceived cost, level of goal importance, and level of work experience impact whether the agent (one who attempts to influence another) will even attempt to influence a superior, particularly after a failed attempt at influencing that superior. Regardless of whether one decides to attempt to influence someone higher in the organizational structure, the tactics identified earlier (Kipnis & Schmidt, 1988; Kipnis et al., 1980b) are available to the agent and will be used directionally whether that direction be upward, downward, or laterally in the organization. This finding appears to run contrary to the Koslowsky and Schwarzwald (1993) study which suggested that executives have more latitude in the selection or tactics than lower level managers.

In summary, position within an organization appears to influence the choice of tactics and even the availability of tactics to managers. Why, with all of the possible power and

influence tactics at their disposal, do managers choose to use certain tactics over others? Kipnis et al. (1980b) developed a model they named the Profile of Organizational Influence Strategies (POIS) which basically hypothesized that one's use of power and influence tactics dependeds on the outcome desired, how much the target might resist the influence attempt by the agent, and how much and what type of power was possessed by the target. The Kipnis model was studied from the opposite perspective, that of the target, and the perception of the influence tactic of the agent was shown to be significantly influenced by the agent's perceived power bases (Hinkin & Schriesheim, 1990). Ludgate (2001) has summarized the Kipnis POIS model in the following table taken from the work of Guglielmo (1996).

Table 3

Variables Affecting Influence Tactic Selection

Variables	Levels
Goals of the influence attempt are:	Personal vs. organizational
A continued relationship between the power holder and the target is:	Desired vs. not desired
Expected resistance from the target is:	Low vs. high
Quality of affective relationship between power holder and target is:	Positive vs. negative

Guglielmo (1996) cited in Ludgate (2001, p. 28)

A study was conducted by Yukl et al. (1992) to determine a manager's use of nine influence tactics and how they are related to the task commitment of the targets and the effectiveness of the manager. The nine influence tactics measured by the Yukl study using

their Influence Behavior Questionnaire (IBQ) were: (a) rational persuasion; (b) inspirational appeals; (c) consultation; (d) ingratiation; (e) personal appeals; (f) exchange; (g) coalition tactics; (h) pressure; and (i) legitimating.

Yang et al. (1998) built upon the work of Kipnis and developed a model and an instrument for measuring power and influence tactics. Yang took into account both the various power and influence tactics, and the circumstances under which they might be used. The Yang model is based on educational planning situations and identifies eight power and influence tactics, and then places them in a three dimensional contextual model. Of the eight tactics shown in the Yang model, seven of them are used in the instrument they developed to measure the use of the tactics. The measurement instrument is called the Power and Influence Tactics Scale (POINTS). Research revealed that *Exchanging* and *Bargaining* measured the same concept, so items were generated only for *Bargaining;* therefore the *Exchanging* tactic is not measured independently.

The eight tactics are accessed depending on three separate dynamics: power relationship (symmetrical or asymmetrical), related interests (conflictual or consensus) and planning action (reactive or proactive). The following figure (Figure 1) shows the three-dimensional POINTS model.

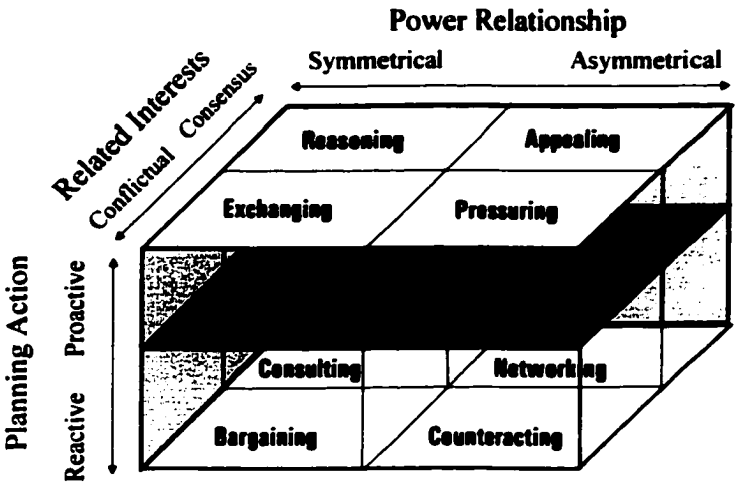

Figure 1. Three–Dimensional POINTS Model (Yang et al., 1998)

The Proactive Personality Component of Leadership Behavior

Yang (1996) posited that proactive personality could significantly impact project planning behavior and thus included the construct in his POINTS instrument. A few years prior to the construction of POINTS, Bateman and Crant (1993) studied proactive personality and organizational behavior. Their study set out to "empirically introduce proactive behavior as a dispositional construct that identifies differences among people in the extent to which they take action to influence their environments" (p. 103). A basic premise of the work of Bateman and Crant is that people are predisposed to be proactive or not and that it is therefore a type of individual difference. This orientation to the human personality and ones predisposition to be proactive or reactive is summarized when Bateman and Crant (1993) state that "proactive people scan for opportunities, show initiative, take action and persevere until they reach closure by bringing about change" (p. 105). "We therefore expect proactive people to engage in behavior at work that goes beyond normal role expectations or specific

job requirements" (Seibert, Kraimer, & Crant, 2001). Disposition toward proactive behavior, then, is seen as more than a single behavioral tendency, it is a personality trait (Crant, 2000; Seibert, Crant, & Kraimer, 1999; Seibert et al., 2001).

According to theory, proactive people tend to take initiative, persevere in their activities, and bring about meaningful change whereas those who are not as proactive are more adaptive, passive, and reactive (Seibert et al., 1999). Proactivity is a characteristic of new 21st century careers where one contracts with multiple employers and performs many different types of responsibilities (Mirvis & Hall, 1996) while experiencing success in those careers (Seibert et al., 1999; Seibert et al., 2001).

In an attempt to measure a person's proclivity toward *proactivity*, Bateman & Crant (1993) developed the 17 item Proactive Personality Scale. This scale was later adapted to a 10 item shortened version (Seibert et al., 1999; Seibert et al., 2001). The shorter instrument was constructed by "selecting the 10 items with the highest average factor loadings across the three studies reported by Bateman and Crant (1993). Cronbach's alpha in the present study was .86" (Seibert et al., 1999, p. 419). It is this instrument that was chosen to measure the "planning action" dimension of Yang's Three–Dimensional POINTS Model and was consistent with the approach taken by Ludgate (2001). The instrument was useful to this study as it attempted to further validate Yang's model and the link between proactive personality and management behavior.

Leadership Behavior and Personality Preference

The Myers-Briggs Type Indicator (MBTI) has been under development since 1942. The instrument was developed in order

> . . . to make the theory of psychological types described by C. G. Jung (1921/1971) understandable and useful in people's lives. The essence of the theory is that much seemingly random variation in behavior is actually quite orderly and consistent, being due to basic differences in the way individuals prefer to use their perception and judgment (Myers et al., 1998, p. 3).

The MBTI is not an instrument that measures traits; it measures preferences for one pole or another of four categories of opposites or dichotomies, namely E/I (extraversion/introversion), S/N (sensation/intuition), T/F (thinking/feeling), and J/P (judgment/perception). A full explanation of the dichotomies is explained in Table 4. "The intent is to reflect a habitual choice between rival alternatives, analogous to right-handedness or left-handedness" (Myers et al., 1998, p. 7). The instrument is not designed to measure the amount of introversion, for example; instead it seeks to identify "a natural preference for one or the other of two opposite modes" (Kirby, 1997, p. 14).

The real benefit of type theory is that it helps us learn to expect certain kinds of differences in people in ways that are predicted by their type. "All too often, others with whom we come in contact do not reason as we reason, or do not value the things we value, or are not interested in what interests us" (Myers & Myers, 1995, p. 1). According to Myers, type theory celebrates differences in how people pursue every phase of life including occupation. Some may be more interested in stability, where others are drawn to creativity. Some may prefer working with inanimate objects while others are much more interested in people and human dynamics. All of these factors and many more come together in ways that also result in behavioral differences regarding how people approach situations, work

assignments, and other people. The MBTI was developed in order that practitioners might identify personality preferences and apply them to many phases of life, including one's professional pursuits.

At least two million people complete the MBTI each year, including every category of individual from private citizens, to people in academia, and others in business and industry. Further, with thousands of research studies conducted every year, the MBTI has become "the most widely used personality instrument in the world" (Myers et al., 1998, p. 4). An overview of the Myers-Briggs dichotomies is summarized in Table 4.

Table 4

The Four Dichotomies of the Myers-Briggs Type Indicator

Extraversion – Introversion Dichotomy (Attitudes or orientations of energy)	
Extraversion (E)	Introversion (I)
Directing energy mainly toward the outer world of people and objects	Directing energy mainly toward the inner world of experiences and ideas
Sensing – Intuition Dichotomy (Functions or processes of Perception)	
Sensing (S)	Intuition (N)
Focusing mainly on what can be perceived by the five senses; seeks the fullest possible experience of what is immediate and real	Focusing mainly on perceiving patterns and interrelationships; seeks the furthest reaches of the possible and imaginative
Thinking – Feeling Dichotomy (Functions or processes of Judging)	
Thinking (T)	Feeling (F)
Basing conclusions on logical analysis with a focus on objectivity and detachment; seeks rational order in accord with the non-personal logic of cause and effect	Basing conclusions on personal or social values with a focus on understanding and harmony; seeks rational order in accord with the creation and maintenance of harmony among important subjective values
Judging – Perceiving Dichotomy (Attitudes or orientations toward dealing with the outside world)	
Judging (J)	Perceiving (P)
Preferring the decisiveness and closure that results from dealing with the outer world using one of the judging processes (Thinking or Feeling)	Preferring the flexibility and spontaneity that results from dealing with the outer world using one of the perceiving processes (Sensing or Intuition)

Myers, et. al (1998, p. 6)

There have been studies attempting to link personality preference and leadership style (Chang, 1999) and personality preference and power and influence behavior (Ludgate, 2001). Chang (1999) used the Leadership Style Instrument (LSI) to measure leadership style, and personality type was measured by the Keirsey Temperamant Sorter (Keirsey & Bates, 1978) which consolidates the sixteen Myers-Briggs Type Indicator (MBTI) types into four *temperaments*. The *temperaments* are: Sensing-Judging (SJ), Intuition-Feeling (NF), Intuition-Thinking (NT) and Sensing-Perceiving (SP). The study sought a relationship between the *temperaments* and the three leadership styles measured by the LSI. The three LSI leadership styles are: Transformational, Situational, and Power-Influence. Chang found no significant relationship between leadership style as measured by the LSI, and personality type as measured by Keirsey-Bates. This is a conclusion shared by Walck (1997), though she did find evidence that there is a relation between personality preference and some leadership behaviors.

Ludgate (2001) studied the connection between the four Myers-Briggs personality preference dichotomies and power and influence tactics as measured by POINTS (Yang et al., 1998). Ludgate concluded that there was a connection between some power and influence behaviors and the Extraversion/Introversion and Thinking/Feeling dimensions of the MBTI. Ludgate (2001) reported that the more Introverted managers were

> . . . less likely to use *Consulting, Bargaining, and Reasoning.* Managers who were more Extraverted were more likely to use these tactics. Managers who scored higher on the preference of Thinking were less likely to use *Bargaining and Appealing.* Conversely, managers who scored higher on the preference of Feeling were more likely to use *Bargaining and Appealing* (p. 117).

Temperament theory uses MBTI combinations "to identify the four Temperaments—sanguine, choleric, phlegmatic, and melancholic—originally proposed as a descriptive system by the Greek philosopher Hippocrates (460—377 B.C.)" (Myers et al., 1998. p. 59). Keirsey and Bates (1978) developed modern *temperament* theory and have connected *temperament* to human behavior. In the words of Keirsey and Bates, "Temperament is that which places a signature or thumbprint on each of one's actions, making it recognizably one's own" (p. 27).

Regarding *temperaments*, Kroeger and Thuesen (1992) have observed that *temperaments* are

> . . . four special two-letter combinations, the creation of David Keirsey and Marilyn Bates, authors of *Please Understand Me*, another book on type. Temperaments are useful because they allow you to know just two letters of someone's type and still make some pretty accurate predictions about his or her behavior. So, even if we don't understand how all four letters fit together, the two-letter *temperament* helps us predict such things as how people teach, learn, lead others, socialize, manage money, and relate to others (p. 52).

For the purposes of the present study, then, *temperament* takes on special significance since we are interested in management behavior. As we have seen, literature does suggest that there is reason to believe that *temperament* and behavior are closely linked. In fact, there is some evidence that *temperament* also impacts the problem formulation and ideation stages of the decision-making process (Volkema & Gorman, 1998).

Keirsey made a real distinction between his work and the work of Jung and Myers. The Function Types below are Keirsey's interpretation of the work of Jung and Myers and point out that the Function Type construct is one that seeks to understand the mind of the person of that particular type while the Intelligence Types (*temperaments*) seek to explain what people do well depending on the circumstance (Keirsey, 2000).

Table 5

Function Types vs. Intelligence Types

Function Types	**Intelligence Types**
Thinking Types	**NT Rationals**
ESTJ -- ENTJ [Extraverted Thinking]	ENTJ -- INTJ [Coordinator]
ISTP -- INTP [Introverted Thinking]	ENTP -- INTP [Engineer]
Intuitive Types	**NF Idealists**
ENTP-- ENFP [Extraverted Intuiting]	ENFJ -- INFJ [Mentor]
INFJ -- INTJ [Introverted Intuiting]	ENFP -- INFP [Advocate]
Feeling Types	**SP Artisans**
ESFJ -- ENFJ [Extraverted Feeling]	ESTP -- ISTP [Expeditor]
ISFP -- INFP [Introverted Feeling]	ESFP -- ISFP [Improviser]
Sensory Types	**SJ Guardians**
ESTP -- ESFP [Extraverted Sensing]	ESTJ -- ISTJ [Administrator]
ISFJ -- ISTJ [Introverted Sensing]	ESFJ -- ISFJ [Conservator]

(Keirsey, 2000)

Function pairs (also roughly shown as Function Types in Table 5) predict decision-making behaviors and are frequently called decision-making styles (Haley, 1997; Lang, 1997; Nutt, 1990; Walck, 1997). The four *function pairs* are: ST, SF, NT, and NF. "The underlying assumption is that the four functions and their decision-making style combinations are integral to the strategic planning because getting information and evaluating it are core planning activities" (Lang, 1997, p. 500).

Inspired by the work of Dr. David Keirsey, Linda V. Berens was instrumental in the development of *interaction styles*. Berens noted a connection between *temperaments*, "DISC® Personal Profile System and the Social Styles literature which is based on the work of Dr. David Merrill" (Berens, 2001, p. iv). As a result, Berens developed descriptions of the four *interaction styles* which, according to Berens, are inborn, remain constant, drive behavior, are dynamic rather than static, a whole pattern "not a cluster of traits" (Berens, 2001, p. 6), organic (some react to stimuli actively while others react more passively), and a form of communication. Of particular interest to the present study is the idea that *interaction styles* are drivers of behavior. The following figure describes *interaction styles* in a graphic manner.

	DIRECTING		INFORMING	
RESPONDING	INFJ	ISTJ	INFP	ISFJ
	INTJ **Chart the Course**	ISTP	INT **Behind the Scenes**	ISFP
INITIATING	ENFJ	ESTJ	ENFP	ESFJ
	ENTJ **In Charge**	ESTP	ENTP **Get Things Going**	ESFP

Figure 2. Interaction Styles and the MBTI (Berens, 2001)

In the following figure, Lang (1997, p. 501) shows how the decision-making styles interact in the strategic-planning process. Note that the *function pairs* are found in each of the four corners. Lang's model is similar in concept to the manner in which Yang et al. (1998) connected power and influence tactics to a typical project planning procedure taking into consideration factors of human relational characteristics like level of conflict, proactivity, and perceived or actual power relationship. The Lang model is introduced in order to establish that other researchers have seen value in attempting to explore a behavioral reflection of personality preference. The present study seeks to show relationships beyond general tendencies such as Lang's "task" or "relationship" orientations and establish possible tendencies reflected in specific power and influence tactics.

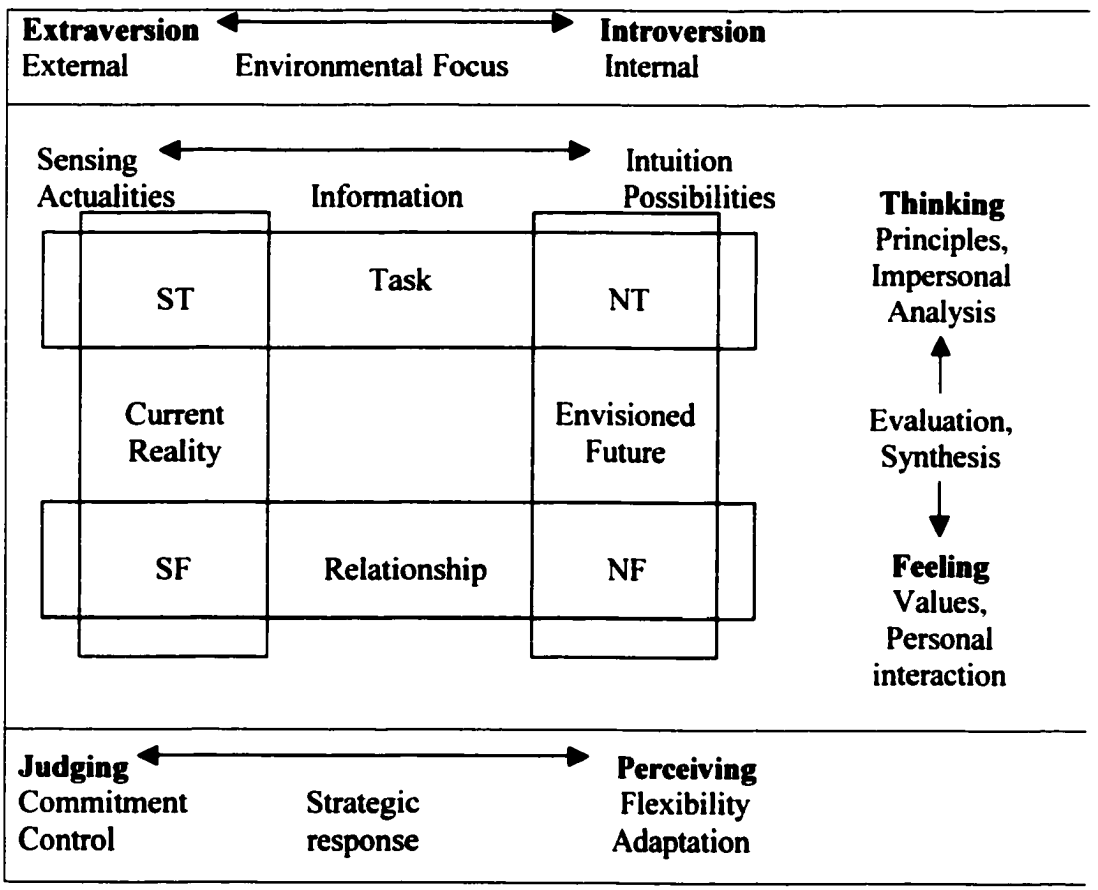

Figure 3. Preliminary Framework for Applying Type to Strategic Planning (Lang, 1997)

Summary of the Literature Review

In a study of correlations between personality as measured by the MBTI and management behaviors of Chinese and European middle and senior managers little connection was found between personality preference and management behavior (Church & Waclawski, 1998). It was determined that more study was needed in order to clarify linkages, if any, between personality and behavior. Church and Waclawski also found that both transactional (day-to-day operation orientation) and transformational (long range planning preference) leaders are needed in an organization, but that most senior managers favor the MBTI T (thinking) and J (judging) orientations. The combination of T and J is transactional in nature, an observation confirmed by other research (Kroeger & Thuesen, 1992; Myers et al., 1998). In a similar study, a connection was found between decision style as measured by the MBTI and strategic action-taking by senior executives and middle managers (Nutt, 1990). Nutt did find connections between Jungian decision style and decision-making and he found that senior executives were more style dependent than middle managers. Nutt observed that most of the work regarding personality and decision-making has been in framework development. He suggested that "To move the study of decision style forward, better links between style and management action are needed" (Nutt, 1990, p. 174).

Chang (1999) found no connection between *temperament* and leadership style. But Chang did not test *function pairs* and she also measured leadership style only as defined by the LSI construct of Transformational, Situational, and Power-Influence models. Chang suggested that a larger sample size is needed since her sample included only 112 managers. It appears that it would also be helpful to test *temperament* theory against models of management behavior, a connection suggested by Walck (1997). Another study requiring

more research with larger sample size is the Yang et al. (1998) study. In regard to the need for further validation of POINTS, Yang suggested that more research using larger sample sizes and program planners from different organizational settings is needed.

The literature indicates that personality preference has an impact on leadership behavior. A study conducted by Sarason et al. (1975) has found that though prior studies concluded that situation had a minor effect on behavior, their research suggested that both situation and personality had a much greater impact on behavior than had originally been thought. This study called for more research concerning the interaction between personality and situation, and indicated that such studies would be helpful in order to enhance our collective understanding of the influence of personality and situation on behavior.

Lang (1997) has shown in Figure 3 that there appears to be a connection between *function pairs* and strategic planning behavior. In fact, one could speculate that Lang's "current reality" is a similar construct to the Yang et al. (1998) "reactive" construct. In a similar manner, Lang's "task" could relate to Yang's "conflictual," the "relationship" construct in Lang could mirror Yang's "consensus" and Lang's "envisioned future" may relate to Yang's "proactive" dimension. These connections require further research in order to be more certain of the possible matches and implications.

The Ludgate (2001) study found relationships between Jungian Extraversion/Introversion and Thinking/Feeling with elements of the POINTS model. The study did not investigate *function pairs* or *temperaments* as they related to the seven power and influence tactics measured by POINTS. Not to be overlooked is the fact that the group type of the Ludgate sample was ENTP. According to the literature, that type profile (TP) is no more than 18% of the management population (Kroeger & Thuesen, 1992; Myers et al.,

1998). Future research will particularly tend to add strength to Ludgate's conclusions if the researcher is fortunate enough to identify a sample more similar to a typical management profile, which one would expect to be more heavily T and J in orientation, a profile representing about 80% of managers (Kroeger & Thuesen, 1992; Myers et al., 1998; Walck, 1997).

The following chapter is an in-depth discussion of the methods used to conduct this study. The nature of the participant sample is revealed. The researcher presents the method used for collecting the data to be analyzed, and the instruments used in this study are discussed at length. Because this was a quantitative study, much time is spent outlining and detailing the type of data that was collected and the methods used for analyzing that data.

CHAPTER THREE

Methods

The purpose of this study was to investigate the relationship between certain personality variables (*temperament, function pairs, interaction styles*, and *proactivity*), organizational hierarchical level, corporate culture (as influenced by job type/work location), and certain management behaviors as exhibited through power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) used in project planning situations.

A template-scored Myers-Briggs Type Indicator (MBTI) form M determined the participant's *temperament* and *function pairs*. The participants also completed surveys to supply the data on power and influence tactics and *proactivity* using two separate instruments, Power and Influence Tactics Scale (POINTS) and Proactive Personality Scale (PPS).

This study is quantitative in nature. The independent variables studied were the aforementioned personality constructs and demographic descriptors such as job type/work location and hierarchical level, while the dependent variables were the power and influence tactics as determined by POINTS. In some of the tests, the demographic and personality variables also served as dependent variables; this is particularly the case for research questions seven through twelve.

Participants

The population selected for this study was a purposeful sample taken primarily from leaders in a northwest energy company. In particular, the present study elected to use a particular type of purposeful sampling called homogeneous sampling because the researcher sought to ". . . select a sample of similar cases so that the particular group that the sample represents can be studied in depth" (Gall, Borg, & Gall, 1996, p. 233). Though purposeful sampling is typically used in qualitative research (Gall et al., 1996), the method was used in this study in order that the researcher might probe deeply into the characteristics of the selected population.

The range of leadership responsibility was from team leader or foreman to senior executive. The sample consisted of 213 leaders and managers. For the purpose of the present study, the researcher anticipated medium effect size with $\eta^2 \approx .059$ as suggested by Huck (2000, p. 457) using the criteria established by Cohen (1977), and adequate power (.70) at $\alpha = .05$ (Stevens, 2002, p. 247). On the surface, the number of groups used for the personality construct (four) combined with the number of dependent variables (seven) would require dividing α by 28 using the Bonferroni technique (Huck, 2000, P. 225) resulting in a p value of .004. In this case, the seven dependent variables are actually a linear combination of elements of the same construct (behavior) and, when testing personality variables, the four independent variables are four levels of a factor (personality) according to Baiyin Yang (personal communication, October 29, 2002). Consequently, α level for this study was set to .05 for the ANOVA and MANOVA tests with no need to adjust α using the Bonferroni technique. With a four group MANOVA, the sample size suggested to deliver the power and

effect size sought is approximately 200 subjects (Stevens, 2002, p. 627). This study was not experimental, and there was no manipulation of the variables.

Procedure

The participants were involved in management development programs. Time was taken during the programs to explain the nature of this study and to seek voluntary participation. Those who wished to contribute to the study were given three instruments, the MBTI, POINTS, and PPS. All of the instruments used were self-report and all were hand-scored. In order for the data to be most current, the participants completed all instruments and surveys even if they had completed the same surveys and instruments in the past. Participants either returned the materials during the training programs or returned the materials to the researcher at a later time. The documents were discarded if the participant did not return a complete set of MBTI, POINTS and PPS documents.

The researcher was careful to assure the protection of human subjects during this study. The identity of the subjects was and is strictly confidential and the content of each survey was coded in such a way that the subjects could be identified only by group. The researcher secured permission from the University of Idaho Institutional Review Board in order to conduct this study using human subjects.

Instrumentation

Certain demographic information was collected in order to contribute to this and later studies. Most of the demographic information was directly used in this study; while some of the demographics were provided in order that the reader might more fully understand the

nature of the sample. The data not directly used in this study are marked with an asterisk. The demographic data were:

- Participant name *
- Gender *
- Company name
- Work Location
- Business unit or subsidiary *
- Length of time with the company *
- Level of education *
- Level of leadership

Three instruments were used for the current study. The instruments were:

- Myers-Briggs Type Indicator (MBTI) Form M Template Scored
- Power and Influence Tactics Scale (POINTS)
- Proactive Personality Scale (PPS)

The instrument used to determine the independent variables having to do with Jungian personality type was the Myers-Briggs Type Indicator. In the MBTI, a person's personality preference is measured on "each of four dichotomous scales, E-I, S-N, T-F, and J-P. The preferences indicated for these four scales are then combined to yield a four-letter type" (Myers et al., 1998, p. 127). There are a possible 16 combinations of those four letters resulting in the 16 types reported by the MBTI.

The essence of Jung's comprehensive theory of type is that everyone uses four basic mental functions, or processes, that are called Sensing (S), Intuition (N), Thinking

> (T), and Feeling (F). These four functions are essential for daily living. The 16 types differ in the priorities given to each function and in the attitudes of Extraversion (E) and Introversion (I) in which they typically use each function. These differences in priorities and attitudes of energy (E or I) account for the different interactions among the functions that occur in each of the 16 types (Myers et al., 1998, p. 23).

These dimensions along with the orientations to the outer world Judging (J) and Perceiving (P) compose the elements measured by the Myers-Briggs Type Indicator.

In 1998 Form M, a new version of the Myers-Briggs instrument, entered the marketplace. There are three different scoring options available for Form M: (a) computer-scored; (b) self-scored; and (c) template-scored. The self-scored and template-scored versions result in "ranges of the raw points for the preferred pole. Since each scale has a different number of items, and therefore a different number of possible raw points, the ranges differ depending on the scale" (Myers et al., 1998, p. 149). In the end, the scores are converted into preference clarity categories designated as slight, moderate, clear, and very clear. The computer-scored version of Form M produces continuous scores using Item Response Theory (IRT) "for use by researchers wishing to correlate MBTI scores with the scores of other instruments or criterion variables" (Myers et al., 1998, p. 149). For reasons explained in the Data Analysis section of this chapter beginning on page 49, the researcher chose not to use the computer-scored version of the instrument but, rather, selected the template-scored version.

Myers (1998) describes a 50-year study that began in 1943 where the MBTI was administered to 87 high school classmates. On their 50 year reunion the instrument was administered again to the 39 students attending the reunion. Over that 50 year interval 54%

changed none or one of the possible eight letters. The level of agreement expected by chance would be 6.25% (Myers et al., 1998, p. 164). Myers states that test-retest agreement will never reach 100% or even a level in the high 80% range because "the individual scales would all have to be over 96%, which is probably unrealistic for scales that measure such complex and multifaceted constructs as the MBTI preferences" (Myers et al., 1998, p. 164).

There has been extensive research suggesting that the MBTI accurately represents personality types consistent with the theory of Carl G. Jung and summaries of this research are found in the Myers (1998) *MBTI Manual*. "Correlations of the four preference scales with a wide variety of scales from other instruments support the predictions of type theory regarding the meaning of and the behaviors believed to be associated with the four dichotomies" (Myers et al., 1998, p. 218). Citations and analysis of the research concerning the reliability of the MBTI is found in chapter 8 and validity of the MBTI is available in chapter 9 of Myers (1998). In short, concerning reliability, both internal consistency and test-retest reliability coefficients were calculated with internal consistency being measured at or above .90 and test-retest coefficients reported at a minimum of .57 and a maximum of .85 (Myers et al., 1998, pp. 160-163). Myers (1998) summarizes the research on instrument validity.

> A number of exploratory factor analyses of the MBTI scales have demonstrated very close correspondence with the hypothesized four-factor structure. More rigorous confirmatory factor analyses provide even stronger support for the model. Correlations of the four preferences scales with a wide variety of scales from other instruments support the predictions of type theory regarding the meaning of and the

behaviors believed to be associated with the four dichotomies (Myers et al., 1998, p. 219).

The POINTS instrument measures seven separate planning behaviors or dimensions. Those dimensions are frequently used as the dependent variables studied in the current research. The dimensions measured are *reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*. Confirmatory factor analysis (CFA) was used in order to determine the construct validity of the POINTS instrument. After having run the CFA, Yang was able to determine that the items included in POINTS

> . . . composed a reasonably acceptable measurement model for the proposed seven factor structure of power and influence tactics. The goodness of fit index reached .814, indicating that more than 80% of item variances and covariances could be explained by the proposed seven dimension factor structure (Yang et al., 1998, p. 236).

Yang was able to conclude that "the refined instrument showed acceptable reliability estimates for the seven proposed dimensions of power and influence tactics" (Yang et al., 1998 p. 238).

Bateman and Crant defined ". . . the individual with a prototypical proactive personality as one who is relatively unconstrained by situational forces and who effects environmental change" (Seibert et al., 1999, p. 417). Proactive personality was assessed using an instrument first developed in 1993 called the Proactive Personality Scale (PPS) (Bateman & Crant, 1993) and was one of the independent variables examined in the current research. The PPS was tested across three samples showing reliability as measured by

Chronbach's alpha ranging from .87 to .89 and the "test-retest reliability coefficient was .72 over a 3-month period" (Seibert et al., 1999, p. 419). The version of the PPS used in the present study was a shortened 10-item version of the instrument. The reliability and validity of the shorter instrument were verified by conducting a study using 181 MBA and undergraduate students.

> The correlation between the 10-item scale used in this study and the full 17-item scale was .96. Deleting the 7 items had little effect on the reliability of the scale (17-item α = .88; 10-item α = .86). Thus the shortened version of the PPS appears to be comparable to the full 17-item version (Seibert et al., 1999, p. 419).

The 10-item version of the PPS was used in the present study with the permission of Mike Crant. The only condition placed on the use of the PPS is that the instrument be used only for research purposes.

Data Analysis

Of considerable importance regarding the selection of statistical methods in the current study is the type of data used in this analysis. In fact, it is the type of data that determines the appropriate statistical test to be used during the examination of the data (Agresti & Finlay, 1997; Huck, 2000; Tuckman, 1999; Wiersma, 2000). There were two types of data collected in the current study and it is prudent to examine each type before settling on the appropriate statistical methods.

The POINTS and PPS instruments both use Likert scales. "A Likert scale contains a number of points on a scale, quite often five, but typically an odd number. The points have

designations such as 'strongly agree' to 'strongly disagree'" (Wiersma, 2000, p. 307). There is difference of opinion as to the category of data Likert scales report. Some researchers (Huck, 2000) insist that Likert scale data is ordinal, while others regard a Likert scale as "an equal-appearing interval scale" (Tuckman, 1999, p. 216) and as such is an illustration of interval measurement. Yet another researcher allows that Likert data "at least approaches having an equal unit in the scale, and thus could be considered interval scale measurement" (Wiersma, 2000, p. 296). Lee (1989) concluded that 5-point scales show little difference in power as compared to continuous measurements, and that parametric tests on Likert-scale data are more powerful than nonparametric tests unless the data is highly nonnormal. According to Lee, the use of Likert-scale data has little affect on type I and type II error rates. Lee and others also note that additional points added to the scale beyond 5 points show little impact on statistical power (Jenkins & Taber, 1977; Lee, 1989, p. 169). For these reasons, the researcher chose to consider the 6-point Likert data produced by POINTS and the 7-point Likert data produced by PPS to be interval data and eligible for analysis using parametric tests.

The MBTI produces data of an entirely different nature. The instrument determines a four-letter designation that indicates one's personality type. The participant is shown to be E or I, S or N, T or F, and J or P according to MBTI terminology. Though the computer-scored form seeks to use Item Response Theory (IRT) to produce continuous data suitable for use on parametric statistical tests, some researchers dispute that claim and suggest that, because the MBTI is a forced choice instrument, the data it produces should be considered ipsative in nature.

> Measures with more than 1 score per participant, when the total for each participant equals the same constant, are said to be ipsative. Ipsativity occurs when data are percentages, with each participant's total equal to 100%, or when data are ranks, with each participant's total equal to the sum of the ranks (Greer & Dunlap, 1997, p. 200)

Common examples of ipsative measures are rank-ordering, point assignment, and forced-choice.

Ipsative data are useful input to statistical tests, but one should not consider them to be continuous or interval data. Regarding their use in between-subjects comparisons, ipsative data should be considered categorical (Cornwell & Dunlap, 1991). "Ipsative scores and ipsative profiles of attributes can convey distinctiveness among individuals but are not measurements of quantity or degree of the attributes" (Cornwell & Dunlap, 1991, p. 96). The various Myers-Briggs dichotomies and combinations of dichotomies like *function pairs* and *temperaments* fit precisely the definition of ipsative measures. These constructs only measure distinctiveness among individuals, not the amount of a construct, and as such this study will use them as categorical measures. Other categorical measures of interest in the present study are job type/work location, proactive personality, and hierarchical management level.

A multiple analysis of variance (MANOVA) determined the relationship between and among the dependent and independent variables for research questions one through six. Because there were seven dependent variables, a multivariate statistical model was an appropriate test to reveal the relationships between and among the independent and dependent variables.

In the case of the present study, a multivariate analysis is appropriate for several reasons. First, using a number of univariate tests "leads to a greatly inflated overall type I error rate, that is, the probability of at least one false rejection" (Stevens, 2002, p. 174). For instance, in this study there are seven dependent variables and with $\alpha = .05$ the probability of not making a type I error on a single test is .95. Stevens (2002) explains that the probability of one or more spurious results (type I error) using t tests at a significance level of .05, for example, is calculated by raising .95 (the probability of not making a type I error) to the power of the number of t tests and subtracting that number from one. Depending on the number of t tests, the probability of making a type I error could be unacceptably high. Second, "The univariate tests ignore important information, namely, the correlations among the variables" (Stevens, 2002, p. 174). Third, though there may not be much difference among the groups (independent variables) regarding any of the individual dependent variables, any small differences could combine to produce a significant cumulative difference.

Stevens (2002), graphically illustrates the difference between a null hypothesis using a univariate t test and a multivariate case. A formula representing a univariate null hypothesis is as follows: $H_0: \mu_1 = \mu_2$.

The following example shows the multivariate null hypothesis:

$$H_0: \begin{pmatrix} \mu_{11} \\ \mu_{21} \\ \cdot \\ \cdot \\ \cdot \\ \mu_{p1} \end{pmatrix} = \begin{pmatrix} \mu_{12} \\ \mu_{22} \\ \cdot \\ \cdot \\ \cdot \\ \mu_{p2} \end{pmatrix}$$

The difference between these two hypotheses is that in the case of the univariate, the hypothesis is that the population means are equal where in the multivariate version the population vectors are hypothesized to be equal. "Saying that the vectors are equal implies that the groups are equal on all p dependent variables" (Stevens, 2002, p. 175).

A MANOVA test will reveal if the groups differ and, like all statistical tests, it operates under a few assumptions. The first assumption is that "The dependent variables are multivariately normally distributed for each population, with the different populations being defined by the levels of the factor" (Green, Salkind, & Akey, 2000, p. 200). Green goes on to say that it is hard to imagine a circumstance where this assumption is perfectly met, but that a one-way MANOVA "yields relatively valid results in terms of type I errors with moderate to large sample sizes" (Green et al., 2000, p. 200). Box's M statistic tests the second assumption that "population variances and covariances among the dependent variables are the same across all levels of the factor" (Green et al., 2000, p. 200). If Box's M F test is significant, the second assumption may have been violated. "The results of Box's test should be interpreted cautiously, however, in that a significant result may be due to

violation of the multivariate normality assumption for this test and a nonsignificant result may be due to small sample size and a lack of power" (Green et al., 2000, p. 203). The tests used by SPSS to evaluate the MANOVA hypothesis are Wilks' Lambda, Pillai's Trace, Hotelling's Trace and Roy's Largest Root. "Each statistic evaluates a multivariate hypothesis that the population means are equal" (Green et al., 2000, p. 199) and each statistic reports a significance or p value.

Effect size, along with α level and sample size, determines a study's statistical power. "The multivariate effect size index associated with Wilk's lambda (Λ) is the multivariate eta square: Multivariate $\eta^2 = 1 - \Lambda^{1/s}$" (Green et al., 2000, p. 200). The effect size helps us understand whether the difference between groups is large or not. It is generally accepted according to Huck (2000) that η^2 values of .01, .059, and .138 represent small, medium, and large effect sizes.

Where significance was found, it was necessary to perform post hoc tests in order to determine which of the dependent variables contribute significantly to the difference among the groups or independent variables. The researcher conducted individual ANOVAs where there was significance in the MANOVA tests. The ANOVAs showed pairwise comparisons among the dependent variables as they related to any independent variable or level of a factor.

Because of the complexity of the three-dimensional POINTS model (see the POINTS diagram on page 29) another approach was taken to identify significance, if any existed, between the independent and dependent variables. On those research questions dealing with multivariate analysis of POINTS tactics (questions 1,2,3,4,5 and 6), additional univariate tests were also conducted. Dr. Baiyin Yang of the University of Minnesota, co-developer of

POINTS, suggested that the three dimensional POINTS model may be too complex for a MANOVA testing all seven tactics, thus masking significance that may actually exist (personal communication, October 29, 2002). Yang encouraged the researcher to conduct individual ANOVA tests on those five research questions and to set alpha at the .05 level. The researcher, then, elected to document both the MANOVA and ANOVA tests on research questions 1 through 6.

Research questions for which all variables were categorical (questions 7 through 12) were evaluated by way of a two-way contingency table analysis using crosstabs. The chi-square test of independence was applied for the contingency table analysis. Such analysis "evaluates whether a statistical relationship exists between two variables" (Green et al., 2000, p. 344). Not only does this test evaluate relationships between variables, as do the MANOVA and ANOVA tests described earlier, but it is also a nonparametric measure of those differences. Because both the independent and dependent variables tested in questions 7 through 12 were categorical, nonparametric measures were appropriate.

When evaluating relationships between variables using the nonparametric chi-square test, the researcher added the adjusted residual row to the crosstabulation results.

> The numerator of each adjusted residual (or adjusted deviate) is the difference between the observed count for that cell and its expected count. The denominator is an estimate of the residual's standard error normalized to have variance of 1 when the data are from a multinomial distribution. In other words, read the values roughly as z scores (look for values well below –2 or above +2) to identify cells that depart markedly from the model of independence (*SPSS base 10.0 applications guide*, 1999, pp. 70-71).

The adjusted residuals were added in order to identify which cells were or were not consistent with an overall pattern of relationships that was suggested whenever there was a significant chi-square test.

The following chapter outlines the results of the present study. The description of the sample is presented including several tables that visually reveal the details of the sample demographics. The reliability of the various instruments is presented and discussed. The research questions are presented again and the results of the statistical analyses are presented for each of the research questions. Finally, chapter four concludes with a summary of the data analyses.

CHAPTER FOUR

Analyses of the Data

Introduction

An empirical study was conducted in order to determine the relationship between certain personality variables (*temperament, function pairs, interaction styles*, and *proactivity*), organizational hierarchical level, corporate culture (as influenced by type and work location), and certain management behaviors as reflected in power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) used in project planning situations. This chapter begins with a description of the participants in terms of gender, leadership level, level of education, relation to the target, work location, and length of service within the organization. Type tables indicating Myers-Briggs type distribution are also presented in order to show the differences among the groups studied regarding their Myers-Briggs type profile. Also included in this chapter is a description of the reliability estimates for POINTS and PPS. A reliability estimate was not conducted for Myers-Briggs because of the well-established documentation attesting to the reliability of the instrument (Myers et al., 1998).

Following the description of the sample is a detailed description of the results of the statistical tests performed in the context of each of the twelve research questions. In some cases, where POINTS is involved, multivariate tests are followed by univariate tests seeking differences among the individual tactics measured by POINTS (dependent variables) as recommended by Dr. Baiyin Yang (personal communication, October 29, 2002) on the various independent variables.

Description of the Sample

The sample for this study was two hundred and thirteen managers. A majority of the managers (209) were employed in the United States, two were from Thailand, one from Canada and one from the United Kingdom. Thirty-six of the participants were enrolled in a utility management development program called Positioning Utility Executives for Change (PUEC) at the University of Idaho, while the other participants (177) were attending a management development program at a major northwest United States utility company.

Table 6 shows the frequency distribution of participants by hierarchical level, education, relation to the target, length of service, and work location.

Table 6

Summary of Demographics of the Purposeful Sample of Utility Managers

Demographic		Frequency	Percentage
Gender	Male	173	87.5
	Female	40	12.5
Leadership Level	First-line	114	53.5
	Manager	55	25.8
	Senior Manager	26	12.2
	General Manager/VP	13	6.1
	Senior Executive	5	2.3
Education			
	High School/GED	51	23.9
	Associates Degree	23	10.8
	BA/BS	83	39.0
	Masters Degree	51	23.9
	Doctorate	4	1.9
	Missing	1	.5
Target Relationship			
	Superior	37	17.4
	Subordinate	53	24.9
	Colleague	108	50.7
	Outside Contact	15	7.0
Location			
	PUEC	36	16.9
	Headquarters (CHQ)	114	53.5
	Field	63	29.6
Length of Service			
	8.5 years or less	52	24.4
	8.51 to 17 years	54	25.4
	17.1 years to 23.5 years	51	24.4
	More than 23.5 years	52	24.4
	Missing	3	1.4

The majority of the managers in the purposeful sample were first-line supervisors (53.5 %). The managers typically had a baccalaureate degree (39.0%), and the number of managers with no college education and those with a masters degree were evenly split (23.9%). Most of the managers (50.7%) reported planning tactics in regard to colleagues with the next most frequent target relationship being tactics directed toward subordinates (24.9%). The majority of the participants worked in a Corporate Headquarters (CHQ) location (53.5%). The table shows that there were 63 from the utility's field locations (29.6%) and that there were 36 participants from the PUEC workshop (16.9%). A majority of leaders who participated in the present study were male (87.5%).

The following two tables show the distribution of the participants regarding their personality type as measured by the Myers-Briggs Type Indicator. The columns in Table 7 are the whole Utility (CHQ and Field), the utility broken down by CHQ and Field, and the PUEC workshop.

Table 7

Type Table for Participants from the Utility and the PUEC Workshop

	Whole Utility		Utility CHQ		Utility Field		PUEC	
Group Size	177		114		63		36	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Chart-the Course	48	27.1	38	33.3	10	15.9	12	33.3
Behind -the-Scenes	37	20.9	20	17.5	17	27.0	6	16.7
In-Charge	53	29.9	31	27.2	22	34.9	6	16.7
Get-Things-Going	39	22.0	25	21.9	14	22.2	12	33.3
NT	43	24.3	30	26.3	13	20.6	13	36.1
NF	42	23.7	33	28.9	9	14.3	7	19.4
SP	24	13.6	13	11.4	11	17.5	5	13.9
SJ	68	38.4	38	33.3	30	47.6	11	30.6
ST	64	36.2	37	32.5	27	42.9	12	33.3
SF	28	15.8	14	12.3	14	22.2	4	11.1

Table 7 above shows *interaction styles* each of which is a combination of four Myers-Briggs types. Also shown in Table 7 are all of the temperaments and function pairs. Temperaments are NT, NF, SP and SJ. Function pairs are NT, NF, ST, and SF. Because both temperaments and function pairs share NT and NF, only the six unique combinations are presented in the table (NT, NF, SP, SJ, ST, SF).

Instrument Reliability

In an attempt to measure a person's proclivity toward *proactivity*, Bateman & Crant (1993) developed the 17 item Proactive Personality Scale. This scale was later adapted to a 10 item shortened version (Seibert et al., 1999; Seibert et al., 2001). The shorter instrument

was constructed by "selecting the 10 items with the highest average factor loadings across the three studies reported by Bateman and Crant (1993). Cronbach's alpha in the present study was .86" (Seibert et al., 1999, p. 419).

Coefficient alpha was computed to determine internal consistency for the 10 item PPS used in the current research by permission of Mike Crant.. The result of the calculation, alpha = .84, suggests a satisfactory level of reliability for the purposes of this study.

Yang et al. (1998) took into account both the various power and influence tactics, and the circumstances under which they might be used in the development of the POINTS instrument. The Yang model is based on educational planning situations and identifies eight power and influence tactics, and then places them in the previously displayed (Figure 1) three-dimensional contextual model. For the purposes of the present study, the POINTS instrument was modified slightly to apply to a business setting as it was for the Ludgate study (Ludgate, 2001). Of the eight tactics explained in the POINTS model, seven of them are used in the instrument Yang and his colleagues developed to measure the use of those tactics. The following table (Table 8) presents the reliability estimates for the POINTS sub scales.

Table 8

Reliability Estimates for Participants' Responses to POINTS by Sub-Scale

Sub-scales	M	SD	Range	Norm[1]	Scale Mean Score[2]	Coefficient Alpha
Conflict of Interest	10.76	5.21	(5,30)	2.47	2.15	.80
Power Base	7.72	4.18	(3,18)	2.84	2.57	.76
Reasoning	23.06	3.22	(5,30)	4.46	4.61	.62
Consulting	20.08	2.87	(4,24)	4.92	5.02	.77
Appealing	19.92	3.58	(5,30)	4.73	3.98	.65
Networking	14.35	3.28	(4,24)	3.33	3.59	.56
Bargaining	9.64	3.72	(4,24)	2.88	2.41	.75
Pressuring	14.38	3.86	(5,30)	2.21	2.88	.59
Counteracting	7.01	3.02	(4,24)	2.11	1.75	.71

[1] Norms are the scores reported by Yang as typical scores observed for each scale during his research.

[2] Scale Mean Scores are calculated by dividing the total scores of responses related to each scale by the number of responses pertaining to each scale. Scores near 6.0 reflect a high degree of that scale while scores closer to 0 reflect a relatively low degree of the scale. Compare this column to the Norm column for a comparison with the norm.

The reliability estimates for the dimensions of the POINTS instrument are reported in Table 8. The coefficient alpha for the seven dimensions ranged from .56 to .77. These estimates are generally not as high as those reported by Yang et al. (1998) or Ludgate (2001). Yang reported a coefficient alpha range from .629 to .821 (p. 238), and Ludgate reported a range of .68 to .83 (p. 60).

The dimensions that showed the lowest values for coefficient alpha were *networking* (.56) and *pressuring* (.59). *Pressuring* (.629) and *counteracting* (.676) showed the lowest levels of the reliability estimate for the Yang study (p. 238), while *appealing* (.68) and *counteracting* (.70) showed the lowest reliability estimates in the Ludgate dissertation (p. 60).

In order to gain insight into the relatively low coefficient alpha numbers for *networking* and *pressuring*, the researcher broke the sample into smaller sub-samples and conducted further coefficient alpha estimates. The PUEC group (N=36), showed coefficient alpha for *networking* of .71 and *pressuring* .67. General managers and vice presidents (N=18) showed coefficient alpha of .74 for *networking* and .62 for *pressuring*. Those who were senior manager level or higher (N=44), a group including the general managers and vice presidents as well as the level below them, showed a coefficient alpha of .73 for *pressuring* but just .51 for *networking*. In spite of some reservations regarding the reliability of the *pressuring* and *networking* dimensions, the overall POINTS instrument shows an acceptable level of reliability for the purposes of the present study.

Participants judged *consulting* (M=5.02) and *reasoning* (M=4.61) to be relatively effective behaviors in dealing with the target person during project planning activities. Examples of questions assessing the level of *consulting* in relation to the target person are: "Asking <the person> for suggestions about your plan" and "Asking <the person> if he or she has any special concerns about your plan." Questions typical of those used to determine the participants' level of *reasoning* are: "Convincing <the person> that your plan is viable" and "Using logical arguments to convince <the person> to support your plan." Counteracting (M=1.75) and bargaining (M=2.41) were reported to be less effective behaviors. An example

of a question used to assess the level of *counteracting* is: "Telling <the person> that you refuse to carry out those questions that you do not agree with." To determine the level of *bargaining*, questions like the following were used: "Offering to do some work for <the person> in return for his or her support."

Because of the extensive previous research confirming the reliability of the MBTI, the researcher did not conduct a reliability analysis on that instrument. The MBTI manual does report the results of such reliability analyses in many different business contexts. The Public Utilities Company results reported in the MBTI manual (Myers et al., 1998, p. 161) are presented in the following table (Table 9). The manual also reports reliability estimates using a national stratified random sample. Those results show reliability similar to that reported on the Public Utilities Company and are also reported in Table 9.

Table 9

Internal Consistency Reliability for the Public Utilities Company and the National Sample

Group	N	E-I	S-N	T-F	J-P
National Sample	3036	.91	.92	.91	.92
Public Utilities Company	53	.95	.95	.94	.91

Research Questions

This study was designed to arrive at a description of the relationships among personality variables, power and influence tactics, and work-related cultural factors. The twelve research questions described below guided the study and are as follows:

1) Does the use of power and influence tactics as measured by POINTS vary depending on management hierarchical level within the organization in a manner that is statistically significant?
2) Does the use of power and influence tactics as measured by POINTS vary depending on job type/work location within the organization in a manner that is statistically significant?
3) Does the use of power and influence tactics as measured by POINTS vary depending on *temperament* as measured by the MBTI in a manner that is statistically significant?
4) Does the use of power and influence tactics as measured by POINTS vary depending on *interaction styles* as measured by the MBTI in a manner that is statistically significant?
5) Does the use of power and influence tactics as measured by POINTS vary depending on *function pairs* as measured by the MBTI in a manner that is statistically significant?
6) Does the use of power and influence tactics as measured by POINTS vary depending on level of proactivity as measured by PPS in a manner that is statistically significant?
7) Does *temperament* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?
8) Do *interaction styles* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

9) Do *function pairs* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

10) Does *temperament* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

11) Do *interaction styles* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

12) Do *function pairs* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

Results

This dissertation was designed to explore answers for twelve research questions. The following pages restate the questions and report the results of the statistical analysis conducted in order to offer answers to those questions.

Though empirical studies typically report rejection or failure to reject H_0 through strict interpretation of the results of the various statistical tests, it is also acceptable to report results that approach significance (Huck, 2000, p. 241). "With the hybrid form of statistical testing, the researcher not only will indicate whether or not the data produce a significant finding, but also will provide evidence as to how strongly the data challenge H_0" (Huck, 2000, p. 241). The hypotheses tested in the present study deal with human behavior and personality preferences, two constructs that are quite difficult to measure precisely. With this in mind and with the acceptability, according to Huck, of reporting results that do not strictly meet but approach significance, the researcher occasionally called to attention tests that were

near statistical significance. The readers, then, will be in position to judge for themselves the significance of the tests and will be better informed regarding areas ripe for further research.

On those research questions dealing with multivariate analysis of POINTS tactics (questions 1 through 6), univariate tests were also conducted in addition to the multivariate tests. Dr. Baiyin Yang of the University of Minnesota, co-developer of POINTS, suggested that the three dimensional POINTS model may be too complex for a MANOVA testing all seven tactics thereby masking significance that may actually exist (personal communication, October 29, 2002).

Research Question One

The first research question was: Does the use of power and influence tactics as measured by POINTS vary depending on management hierarchical level within the organization in a manner that is statistically significant?

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of hierarchical level within an organization (first-line, manager, and senior manager with senior manager being a combination of senior manager, general manager/vp, and senior executive) on the seven dependent variables. The results of the MANOVA did not reveal significance among the hierarchical levels on the dependent variables, Wilks' $\lambda = .91$, $F(14, 213) = 1.43$, $p = .136$, $\eta^2 = .05$. Table 10 presents the results of the multivariate tests.

Table 10

MANOVA for First Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2431.04[a]	7.00	204.00	.000	.99
	Wilks' Lambda	.01	2431.04[a]	7.00	204.00	.000	.99
	Hotelling's Trace	83.42	2431.04[a]	7.00	204.00	.000	.99
	Roy's Largest Rt.	83.42	2431.04[a]	7.00	204.00	.000	.99
Heirarchical Level	Pillai's Trace	.09	1.43	14.00	410.00	.137	.05
	Wilks' Lambda	.91	1.43[a]	14.00	408.00	.136	.05
	Hotelling's Trace	.10	1.43	14.00	406.00	.136	.05
	Roy's Largest Rt.	.07	2.16[b]	7.00	205.00	.040	.07

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the sig. level.

Having followed the advice of Yang, seven one-way analyses of variance were conducted to evaluate the relationship between management hierarchical level and the seven tactics measured by POINTS. The independent variable, hierarchical level, included three levels: first-line, manager, and senior manager (the senior manager category, combined senior manager, general manager/vp, and senior executive because of the small number of general manager/vp (13) and senior executive (5)). The dependent variables were the seven tactics measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring, and counteracting*). The following table (Table 11) summarizes the results of the seven one-way analyses of variance.

Table 11

Analysis of Variance

Summaries of the relationship between POINTS Tactics and Hierarchical Level

Source	df	SS	MS	F	P
Reasoning					
Between groups	2	1.752	.876	2.149	.119
Within groups	210	85.559	.407		
Consulting					
Between groups	2	2.342	1.171	.106	.106
Within groups	210	108.197	.515		
Appealing					
Between groups	2	.304	.152	.295	.745
Within groups	210	108.401	.516		
Networking					
Between groups	2	.747	.373	.553	.576
Within groups	210	141.665	.675		
Bargaining					
Between groups	2	2.307E-02	1.153E-02	.013	.987
Within groups	210	189.925	.904		
Pressuring					
Between groups	2	1.952	.976	1.711	.183
Within groups	210	119.739	.570		
Counteracting					
Between groups	2	3.651	1.825	3.270*	.040
Within groups	210	117.220	.558		

NOTE: *$p < .05$.

Table 11 above shows significance only for the *counteracting* tactic. Follow-up tests were conducted to evaluate pairwise differences among the means for *counteracting*. Because Levene's test for equality of variances was not significant ($p > .40$) the researcher

chose to use a follow-up test, Tukey, that assumes equality of variances. There were significant differences between first-line and senior managers ($p = .038$) with the data suggesting that first-line managers were more likely to use *counteracting* in their project planning activities than their senior management counterparts. Eta squared was .03 and observed power was measured at .62. The researcher sought a moderate eta squared of .059 and power of .70. The test results show a somewhat lower strength of relationship, though still in the moderate category, and slightly lower power than those established prior to the data analysis. No significant differences were found between first-line and managers or between senior managers and managers.

Research Question Two

The second research question was: Does the use of power and influence tactics as measured by POINTS vary depending on job type/work location within the organization in a manner that is statistically significant?

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of job type/work location within the organization (PUEC, CHQ, field) on the seven dependent variables. The results of the MANOVA did not reveal significance among the hierarchical levels on the dependent variables, Wilks' $\lambda = .90$, $F(14, 213) = 1.49$, $p = .110$, $\eta^2 = .05$. Table 12 presents the results of the multivariate tests.

Table 12

MANOVA Table for Second Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2386.83[a]	7.00	204.00	.000	.99
	Wilks' Lambda	.01	2386.83[a]	7.00	204.00	.000	.99
	Hotelling's Trace	81.90	2386.83[a]	7.00	204.00	.000	.99
	Roy's Largest Rt.	81.90	2386.83[a]	7.00	204.00	.000	.99
Location Code	Pillai's Trace	.10	1.50	14.00	410.00	.108	.05
	Wilks' Lambda	.90	1.49[a]	14.00	408.00	.110	.05
	Hotelling's Trace	.10	1.49	14.00	406.00	.111	.05
	Roy's Largest Rt.	.07	1.93[b]	7.00	205.00	.066	.06

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the sig. level.

Having followed the advice of Yang, seven one-way analyses of variance were conducted to evaluate the relationship between work location and the seven tactics measured by POINTS. The independent variable, work location, included three levels: PUEC, CHQ,

and field. The dependent variables were the seven tactics measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring, and counteracting*). None of the seven ANOVA tests revealed any significant relationships between the dependent variables and the levels of the factor.

In order to evaluate the possible cultural differences within the utility, the same seven ANOVA tests were conducted comparing means between CHQ and field. None of the seven ANOVA tests revealed any significant relationships between the dependent variables and the levels of the factor.

Research Question Three

The third research question was: Does the use of power and influence tactics as measured by POINTS vary depending on *temperament* as measured by the MBTI in a manner that is statistically significant?

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of *temperament* (NF, NT, SJ, SP) on the seven dependent variables. The results of the MANOVA did not reveal significance among the *temperaments* on the dependent variables, Wilks' $\lambda = .90$, $F(21, 213) = 1.03$, $p = .422$, $\eta^2 = .03$. Table 13 presents the results of the multivariate tests.

Table 13

MANOVA Table for the Third Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2515.73[a]	7.00	203.00	.000	.99
	Wilks' Lambda	.01	2515.73[a]	7.00	203.00	.000	.99
	Hotelling's Trac	86.75	2515.73[a]	7.00	203.00	.000	.99
	Roy's Largest Rt	86.75	2515.73[a]	7.00	203.00	.000	.99
Temperament Code	Pillai's Trace	.10	1.03	21.00	615.00	.422	.03
	Wilks' Lambda	.90	1.03	21.00	583.46	.422	.03
	Hotelling's Trac	.11	1.03	21.00	605.00	.423	.03
	Roy's Largest Rt	.07	1.93[b]	7.00	205.00	.066	.06

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance le

Seven one-way analyses of variance were conducted to evaluate the relationship between *temperament* and the seven tactics measured by POINTS. The independent

variable, *temperament*, included four levels (NT, NF, SP, and SJ). The dependent variables were the seven tactics measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring, and counteracting*). None of the seven ANOVA tests revealed any significant relationships between the dependent variables and the levels of the factor.

Research Question Four

The fourth research question was: Does the use of power and influence tactics as measured by POINTS vary depending on *interaction styles* as measured by the MBTI in a manner that is statistically significant?

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of *interaction styles* (*chart-the-course, behind-the-scenes, in-charge,* and *get-things-done*) on the seven dependent variables. The results of the MANOVA did not reveal significance among the *interaction styles* on the dependent variables, Wilks' $\lambda = .87$, $F(21, 213) = 1.330$, $p = .148$, $\eta^2 = .04$. Table 14 presents the results of the multivariate tests.

Table 14

MANOVA Table for Fourth Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2928.85[a]	7.00	203.00	.000	.99
	Wilks' Lambda	.01	2928.85[a]	7.00	203.00	.000	.99
	Hotelling's Trace	100.99	2928.85[a]	7.00	203.00	.000	.99
	Roy's Largest Rt.	100.99	2928.85[a]	7.00	203.00	.000	.99
Interaction Style	Pillai's Trace	.13	1.32	21.00	615.00	.152	.04
	Wilks' Lambda	.87	1.33	21.00	583.46	.148	.04
	Hotelling's Trace	.14	1.34	21.00	605.00	.144	.04
	Roy's Largest Rt.	.10	2.80[b]	7.00	205.00	.008	.09

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance le

Seven one-way analyses of variance were conducted to evaluate the relationship between *interaction style* and the seven tactics measured by POINTS. The independent variable, *interaction style*, included four levels (*chart-the course, behind-the-scenes, in-charge,* and *get-things-done*). The dependent variables were the seven tactics measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring,* and *counteracting*). The following table summarizes the results of the seven one-way analyses of variance.

Table 15

Analysis of Variance

Summaries of the relationship between POINTS Tactics and Interaction Styles

Source	df	SS	MS	F	P
Reasoning					
Between groups	3	5.344	1.781	4.542*	.004
Within groups	209	81.967	.392		
Consulting					
Between groups	3	.349	.116	.221	.882
Within groups	209	110.190	.527		
Appealing					
Between groups	3	3.136	1.045	2.069	.105
Within groups	209	105.570	.505		
Networking					
Between groups	3	3.345	1.115	1.676	.173
Within groups	209	139.067	.665		

Analysis of Variance

Summaries of the relationship between POINTS Tactics and Interaction Styles

(Continued)

Source	df	SS	MS	F	P
Bargaining					
Between groups	3	3.012	11.004	1.123	.341
Within groups	209	186.936	.894		
Pressuring					
Between groups	3	3.270	1.090	1.924	.127
Within groups	209	118.420	.567		
Counteracting					
Between groups	3	1.974	.658	1.157	.327
Within groups	209	118.896	.569		

Note: *p < .05.

Table 15 above shows significance only for the *reasoning* tactic. Follow-up tests were conducted to evaluate pairwise differences among the means for the *reasoning* tactic. Because Levene's test for equality of variances was not significant (p > .50) the researcher chose to use a follow-up test, Tukey, which assumes equality of variances. There were significant differences between *chart-the-course* and *behind-the-scenes* (p = .021) with those preferring *chart-the-course* being more likely to use *reasoning* in their project planning activities than those preferring *the behind-the-scenes interaction style.*

Those preferring the *chart-the-course* style were also significantly more likely to use the *reasoning* tactic than those preferring the *get-things-going interaction style* (p = .005). No significant differences were found between *chart-the-course* and *in-charge.* No

significant differences were found between *in-charge* and any of the other styles nor were any significant differences found between any of the other *interaction styles*.

Eta squared was .061 and observed power was measured at .881. The researcher sought a moderate eta squared of .059 and power of .70. The test results show a somewhat higher strength of relationship, and higher power than those established by the researcher prior to the data analysis.

Research Question Five

The fifth research question was: Does the use of power and influence tactics as measured by POINTS vary depending on *function pairs* as measured by the MBTI in a manner that is statistically significant?

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of *function pairs* (NT, NF, ST, SF) on the seven dependent variables. The results of the MANOVA did not reveal significance among *function pairs* on the dependent variables, Wilks' $\lambda = .88$, $F(21, 213) = 1.258$, $p = .197$, $\eta^2 = .04$. Table 16 presents the results of the multivariate tests.

Table 16

MANOVA Table for Fifth Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Et Squared
Intercept	Pillai's Trace	.99	2628.77[a]	7.00	203.00	.000	.99
	Wilks' Lambda	.01	2628.77[a]	7.00	203.00	.000	.99
	Hotelling's Tra	90.65	2628.77[a]	7.00	203.00	.000	.99
	Roy's Largest F	90.65	2628.77[a]	7.00	203.00	.000	.99
Function Pairs	Pillai's Trace	.12	1.25	21.00	615.00	.203	.04
	Wilks' Lambda	.88	1.26	21.00	583.46	.197	.04
	Hotelling's Tra	.13	1.27	21.00	605.00	.191	.04
	Roy's Largest F	.10	2.81[b]	7.00	205.00	.008	.09

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the signific

Seven one-way analyses of variance were conducted to evaluate the relationship between *function pairs* and the seven tactics measured by POINTS. The independent

variable, *function pairs*, included four levels (NT, NF, ST, and SF). The dependent variables were the seven tactics measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring,* and *counteracting*). The following table summarizes the results of the seven one-way analyses of variance.

Table 17

Analysis of Variance

Summaries of the relationship between POINTS Tactics and Function Pairs

Source	df	SS	MS	F	P
Reasoning					
Between groups	3	4.422	1.474	3.717*	.012
Within groups	209	82.889	.397		
Consulting					
Between groups	3	.338	.113	.214	.887
Within groups	209	110.200	.527		
Appealing					
Between groups	3	2.398	.799	1.572	.197
Within groups	209	106.308	.509		
Networking					
Between groups	3	3.189	1.063	1.596	.192
Within groups	209	139.223	.666		

Analysis of Variance

Summaries of the relationship between POINTS Tactics and Function Pairs (Continued)

Source	df	SS	MS	F	P
Bargaining					
Between groups	3	1.610	.537	.596	.619
Within groups	209	188.338	.901		
Pressuring					
Between groups	3	4.745	1.582	2.827*	.040
Within groups	209	116.946	.560		
Counteracting					
Between groups	3	1.392	. .464	.812	.489
Within groups	209	119.478	.572		

Note: *p < .05.

Table 17 shows significance for the *reasoning* and *pressuring* tactics. Follow-up tests were conducted to evaluate pairwise differences among the means for the *reasoning* and *pressuring* tactics. For the *reasoning* tactic, because Levene's test for equality of variances was not significant (p >.38) the researcher chose to use a follow-up test, Tukey, that assumes equality of variances.

There were significant differences between ST and NT (p = .034) with those preferring ST being more likely to use *reasoning* in their project planning activities than those preferring the NT *function pair*. There were also significant differences between ST and SF with those preferring ST being more likely than SF to use the *reasoning* tactic (p = .05) in project planning situations.

No significant differences were found after having examined all of the other combinations of *function pairs* regarding their relationship to *reasoning*. Eta squared was .051 and observed power was measured at .802. The researcher sought a moderate eta squared of .059 and power of .70. The test results show a strength of relationship near that sought before the tests were run, and higher power than that established by the researcher prior to the data analysis.

The researcher then conducted post hoc tests regarding the *pressuring* tactic. For the *pressuring* tactic, because Levene's test for equality of variances was not significant ($p > .10$) the researcher chose to use a follow-up test, Tukey, which assumes equality of variances. There were differences that approached significance between ST and NF ($p = .055$) with those preferring ST appearing to be more likely to use *pressuring* in their project planning activities than those preferring the NF *function pair*. There were no significant relationships found between any of the other *function pairs* and the project planning tactics.

Eta squared was .039 and observed power was measured at .673. The researcher sought a moderate eta squared of .059 and power of .70. The test results show a strength of relationship and power near that sought before the tests were run.

Research Question Six

The sixth research question was: Does the use of power and influence tactics as measured by POINTS vary depending on level of proactivity as measured by PPS in a manner that is statistically significant?

The researcher divided the participants into three groups based on their scores on the Proactive Personality Scale (PPS). The group scoring in the bottom third contained 67 participants and was designated "low". The group scoring in the midrange contained 52 participants and was designated "medium". The group scoring highest contained 58 participants and was designated "high". The groups were not of exactly equal size because a number of participants recorded identical scores thus making it impossible to divide the groups equally. A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of proactive personality as measured by PPS on the seven dependent variables measured by POINTS (*reasoning, appealing, consulting, networking, bargaining, pressuring*, and *counteracting*). The results of the MANOVA did not reveal significance among proactive personality levels (high, medium, low) on the dependent variables, Wilks' $\lambda = .92$, $F\ (14, 408) = 1.21$, $p = .268$, $\eta^2 = .04$. Table 18 presents the results of the multivariate tests.

Table 18

MANOVA Table for Sixth Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2827.42[b]	7.00	204.00	.000	.99
	Wilks' Lambda	.01	2827.42[b]	7.00	204.00	.000	.99
	Hotelling's Trace	97.02	2827.42[b]	7.00	204.00	.000	.99
	Roy's Largest Rt.	97.02	2827.42[b]	7.00	204.00	.000	.99
Proactive Personality	Pillai's Trace	.08	1.21	14.00	410.00	.265	.04
	Wilks' Lambda	.92	1.21[b]	14.00	408.00	.268	.04
	Hotelling's Trace	.08	1.20	14.00	406.00	.271	.04
	Roy's Largest Rt.	.05	1.56[c]	7.00	205.00	.149	.05

a. Computed using alpha = .05

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

In order to evaluate a possible cultural difference between the utility and the PUEC group, the researcher chose to conduct further MANOVA analyses. An analysis of the PUEC group alone yielded no significant findings ($p = .278$). The researcher then conducted a MANOVA test examining only the utility. The results of the MANOVA did reveal significance among proactive personality levels (high, medium, low) on the dependent variables, Wilks' $\lambda = .86$, $F(14, 336) = 1.86$, $p = .030$, $\eta^2 = .07$. Tables 19 and 20 present the results of the multivariate tests.

Table 19

MANOVA Table for Utility Portion of Sixth Research Question

Effect		Value	F	Hypoth. df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.99	2221.75[b]	7.00	168.00	.000	.99
	Wilks' Lambda	.01	2221.75[b]	7.00	168.00	.000	.99
	Hotelling's Trace	92.57	2221.75[b]	7.00	168.00	.000	.99
	Roy's Largest Rt.	92.57	2221.75[b]	7.00	168.00	.000	.99
Proactive Personality	Pillai's Trace	.14	1.86	14.00	338.00	.029	.07
	Wilks' Lambda	.86	1.86[b]	14.00	336.00	.030	.07
	Hotelling's Trace	.16	1.86	14.00	334.00	.030	.07
	Roy's Largest Rt.	.11	2.57[c]	7.00	169.00	.015	.10

a. Computed using alpha = .05

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 20

Tests of Between Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Proactive Personality	Reasoning	.344	2	.172	.409	.665	.005
	Consulting	1.803	2	.901	1.652	.195	.019
	Appealing	.729	2	.365	.688	.504	.008
	Networking	4.426	2	2.213	3.466	.033	.038
	Bargaining	7.039	2	3.519	4.132	.018	.045
	Pressuring	5.017	2	2.508	4.630	.011	.051
	Counteracting	5.904	2	2.952	5.466	.005	.059
Error	Reasoning	73.074	174	.420			
	Consulting	94.921	174	.546			
	Appealing	92.267	174	.530			
	Networking	111.079	174	.638			
	Bargaining	148.188	174	.852			
	Pressuring	94.262	174	.542			
	Counteracting	93.974	174	.540			

a. Computed using alpha = .05

Table 20 shows significance for *networking, bargaining, pressuring, and counteracting.* Multiple pairwise comparisons were conducted to find which level of proactivity (high, medium, low) affected the tactics most strongly.

Because Box's test of equality of covariance matrices was significant (p = .001), we cannot assume that the variances and covariances among the dependent variables were the same for all levels of the factor. Therefore, the Dunnett T3 test, a test that does not assume homogeneity of variance, was used when conducting multiple comparisons (Green et al., 2000, p. 161).

Those scoring highest on the Proactive Personality Scale (PPS) instrument were more likely to prefer *networking* as a project planning tactic than those who scored low on the

scale and the preference was at a level approaching significance (p = .065). The *bargaining* tactic was more preferred by those in the midrange (p = .024) and it was also preferred at a level approaching significance by those scoring in the highest level of proactivity (p = .064) more than by those who scored at the lowest level. *Pressuring* was significantly the more preferred tactic (p = .020) for those who scored highest on the PPS and was more preferred at a level approaching significance (p = .063) by those in the midrange than those who scored at the lowest level. *Counteracting* was a significantly (p = .020) more preferred tactic chosen by those scoring highest on the PPS than it was for those scoring at the lowest level.

Eta squared was .072 and observed power was .929. The researcher sought a moderate eta squared of .059 and power of .70. The test results showed a strength of association and power that were substantially higher than those established by the researcher prior to the data analysis.

Research Question Seven

The seventh research question was: Does *temperament* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *temperament* (NT, NF, SP, and SJ) differed within the organization depending on hierarchical level (first-line, manager, and senior manager/vp). The contingency table analysis did not reveal significant results among *temperaments* as they relate to hierarchical level, Pearson χ^2 (6, 213) = 4.92, p = .554. Table 21 presents the results of the contingency table analysis.

Table 21

Chi-Square Tests for Research Question Seven

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.92[a]	6	.554
Continuity Correction			
Likelihood Ratio	5.00	6	.544
Linear-by-Linear Association	2.36	1	.124
N of Valid Cases	213		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.99.

Research Question Eight

The eighth research question was: Do *interaction styles* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *interaction styles* (*chart-the-course, behind-the-scenes, in-charge, and get-things-done*) differed within the organization depending on hierarchical level (first-line, manager, senior manager). The contingency table analysis did not reveal significant results among *interaction styles* as they relate to hierarchical level, Pearson χ^2 (6, 213) = 5.746, p = .452. Table 22 presents the results of the contingency table analysis.

Table 22

Chi-Square Tests for Research Question Eight

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.75[a]	6	.452
Continuity Correction			
Likelihood Ratio	5.71	6	.456
Linear-by-Linear Association	.59	1	.441
N of Valid Cases	213		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.88.

Research Question Nine

The ninth research question was: Do *function pairs* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *function pairs* (NT, NF, ST, SF) differed within the organization depending on hierarchical level (first-line, manager, senior manager). The contingency table analysis did not reveal significant results among *function pairs* as they relate to hierarchical level, Pearson χ^2 (6, 213) = 5.08, p = .533. Table 23 presents the results of the contingency table analysis.

Table 23

Chi-Square Tests for Research Question Nine

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.081[a]	6	.533
Continuity Correction			
Likelihood Ratio	5.211	6	.517
Linear-by-Linear Association	2.604	1	.107
N of Valid Cases	213		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.61.

Research Question Ten

The tenth research question was: Does *temperament* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *temperament* (NT, NF, SP, SJ) differed within the organization depending on job type/work location (PUEC, CHQ, field). The contingency table analysis did not reveal significant results among *temperaments* as they relate to job type/work location, Pearson χ^2 (6, 213) = 9.94, p = .127. Table 24 presents the results of the contingency table analysis.

Table 24

Chi-square Tests for Question Ten

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.94[a]	6	.127
Continuity Correction			
Likelihood Ratio	9.93	6	.128
Linear-by-Linear Association	5.19	1	.023
N of Valid Cases	213		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 4.90.

The researcher conducted a second two-way contingency table analysis to determine whether *temperament* (NT, NF, SP, and SJ) differed within the utility depending on job type/work location. Because PUEC was a management development gathering not related to the management team at the utility, the researcher excluded PUEC for the purposes of this test. Job type/work location for this test, then, was (CHQ, field). The contingency table

analysis revealed results that approached significance among *temperaments pairs* as they relate to job type/work location, Pearson χ^2 (3, 177) = 7.47, p = .058. Table 25 presents the results of the contingency table analysis.

Table 25

Chi-square Tests for Question Ten within Company

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.47[a]	3	.058
Continuity Correction			
Likelihood Ratio	7.69	3	.053
Linear-by-Linear Association	4.43	1	.035
N of Valid Cases	177		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.54.

Table 26

Location * Temperaments Crosstabulation

			Location		
			CHQ	Field	Total
Temperament	NT	Count	30	13	43
		Expected Count	27.7	15.3	43
		% within Location	26.3%	20.6%	24%
		Adjusted Residual	.8	-.8	
	NF	Count	33	9	42
		Expected Count	27.1	14.9	42
		% within Location	28.9%	14.3%	24%
		Adjusted Residual	2.2*	-2.2*	
	SP	Count	13	11	24
		Expected Count	15.5	8.5	24
		% within Location	11.4%	17.5%	14%
		Adjusted Residual	-1.1	1.1	
	SJ	Count	38	30	68
		Expected Count	43.8	24.2	68
		% within Location	33.3%	47.6%	38%
		Adjusted Residual	-1.9	1.9	
Total		Count	114	63	177
		Expected Count	114.0	63.0	177
		% within Location	100.0%	100.0%	100%
		Adjusted Residual			

Note: * $p < .05$

An examination of the residuals, a residual of 2 or above is considered significant (*SPSS base 10.0 applications guide*, 1999), revealed that there was one significant comparison and one comparison that approached significance. The significant comparison

was between NF at CHQ and in the field where NF was found to be significantly more likely ($p = .028$) to occur at CHQ than in field locations.

The second notable comparison approached significance ($p = .057$) and was the comparison of SJ in CHQ as compared to SJ in the field. SJ was found to approach significance and was more prevalent in field management ranks than at CHQ.

Research Question Eleven

The eleventh research question was: Do *interaction styles* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *interaction styles* (*chart-the-course, behind-the-scenes, in-charge, and get-things-done*) differed depending on job type/work location (PUEC, CHQ, field). The results of the contingency table analysis show comparisons that approached significance regarding the relationship of *interaction styles* to job type/work location, Pearson χ^2 (6, 213) = 11.23, p = .081, Cramer's V =.16. Table 27 presents the results of the contingency table analysis.

Table 27

Chi-square Tests for Question Eleven for Whole Sample

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.23[a]	6	.081
Continuity Correction			
Likelihood Ratio	11.72	6	.068
Linear-by-Linear Association	.68	1	.409
N of Valid Cases	213		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.27.

Because the contingency table analysis revealed results that approached significance, a crosstabulation was conducted in order to explore comparisons among the three groups and the *interaction styles*. Table 28 shows the results of the crosstabulation. There were two

comparisons that were significant or that approached significance regarding job type/work location and its relationship to interaction code.

The first comparison indicated that *chart-the-course* managers were found to approach significance (p = .072) and was more prevalent at the CHQ than expected and the second comparison suggested that the *chart-the-course* style was significantly (p = .009) less likely to occur at field locations than expected.

The *behind-the-scenes* style showed a slight but statistically insignificant (p = .11) tendency to occur more frequently than expected among managers in the field while *behind-the-scenes* managers occurred at CHQ and the PUEC in proportions that were near expected numbers. The tendency in field locations, while being statistically insignificant, may be worthy of further investigation using a larger or different sample even though the proportion in this study is not large enough to be reportable or to draw any meaningful conclusions. Likewise, *in-charge* managers may occur (p = .11) less frequently than expected at the PUEC workshop and the style may be higher than expected (p = .134) in the field location within the utility though these proportions are far from the statistical standard of .05 and are not meaningful as a part of this study. This too is possibly an area worthy of further study.

The *get-things-going* style occurred among the three locations (PUEC, CHQ, field) in proportions that were near expectations and the differences were not statistically significant. Table 28 shows the detailed results of these statistical analyses.

Table 28

Location * Interaction Style Crosstabulation

			Location			
			PUEC	CHQ	Field	Total
Interaction Code	Chart-the-Course	Count	12	38	10	60
		Expected Count	10.1	32.1	17.7	60
		% within Location	33.3%	33.3%	15.9%	28%
		Adjusted Residual	.8	1.8	-2.6*	
	Behind-the-Scenes	Count	6	20	17	43
		Expected Count	7.3	23.0	12.7	43
		% within Location	16.7%	17.5%	27.0%	20%
		Adjusted Residual	-.6	-1.0	1.6	
	In-Charge	Count	6	31	22	59
		Expected Count	10.0	31.6	17.5	59
		% within Location	16.7%	27.2%	34.9%	28%
		Adjusted Residual	-1.6	-.2	1.5	
	Get-Things-Going	Count	12	25	14	51
		Expected Count	8.6	27.3	15.1	51
		% within Location	33.3%	21.9%	22.2%	24%
		Adjusted Residual	1.4	-.7	-.4	
Total		Count	36	114	63	213
		Expected Count	36.0	114.0	63.0	213
		% within Location	100.0%	100.0%	100.0%	100%
		Adjusted Residual				

Note: *p < .05

In order to gain a more complete understanding of intra-company culture, the researcher chose to examine the relationships between *interaction styles* and work locations within the utility. A two-way contingency table analysis was conducted to determine whether *interaction styles* (*chart-the-course, behind-the-scenes, in-charge, and get-things-*

done) differed within the organization depending on job type/work location (CHQ, field). The results of the contingency table analysis approached significance regarding the relationship of *interaction styles* to job type/work location, Pearson χ^2 (6, 213) = 7.10, $\underline{p}$ = .069, Cramer's $\underline{V}$ =.16. Table 29 presents the results of the contingency table analysis.

Table 29

Chi-square Tests for Question Eleven for the Utility

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.102[a]	3	.069
Continuity Correctio			
Likelihood Ratio	7.434	3	.059
Linear-by-Linear Association	2.175	1	.140
N of Valid Cases	177		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.17.

Because the contingency table analysis approached significance, a crosstabulation was conducted in order to explore comparisons between the two groups (CHQ and field) and the *interaction styles*. Table 30 presents the results of the crosstabulation. An examination of the residuals, a residual of 2 or above is considered significant (*SPSS base 10.0 applications guide*, 1999), revealed that there were two significant comparisons regarding job type/work location and its relation to interaction code.

The first notable comparison indicated that *chart-the-course* managers were found to be significantly (p = .012) more prevalent than expected at the CHQ and that this style occurred significantly (p = .012) less frequently in the field than would normally be expected.

Table 30

Location * Interaction Style Utility Crosstabulation

			Location		
			CHQ	Field	Total
Interaction Style	Chart-the-Course	Count	38	10	48
		Expected Count	30.9	17.1	48
		% within Location	33.3%	15.9%	27%
		Adjusted Residual	2.5*	-2.5*	
	Behind-the-Scenes	Count	20	17	37
		Expected Count	23.8	13.2	37
		% within Location	17.5%	27.0%	21%
		Adjusted Residual	-1.5	1.5	
	In-Charge	Count	31	22	53
		Expected Count	34.1	18.9	53
		% within Location	27.2%	34.9%	30%
		Adjusted Residual	-1.1	1.1	
	Get-Things-Going	Count	25	14	39
		Expected Count	25.1	13.9	39
		% within Location	21.9%	22.2%	22%
		Adjusted Residual	.0	.0	
Total		Count	114	63	177
		Expected Count	114.0	63.0	177
		% within Location	100.0%	100.0%	100%
		Adjusted Residual			

Note: *p < .05

Research Question Twelve

The twelfth research question was: Do *function pairs* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

A two-way contingency table analysis was conducted to determine whether *function pairs* (NT, NF, ST, SF) differed within the organization depending on job type/work location (PUEC, CHQ, field). The contingency table analysis did not reveal significant results among *function pairs* as they relate to job type/work location, Pearson χ^2 (6, 213) = 10.53, p = .104. Table 31 presents the results of the contingency table analysis.

Table 31

Chi-Square Tests for Research Question Twelve

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.53[a]	6	.104
Continuity Correctic			
Likelihood Ratio	10.40	6	.109
Linear-by-Linear Association	5.80	1	.016
N of Valid Cases	213		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.41.

The researcher conducted a second two-way contingency table analysis to determine whether *function pairs* (NT, NF, ST, and SF) differed within the organization depending on job type/work location. Because PUEC was a management development gathering not related to the management team at the utility, the researcher excluded PUEC for the purposes of this test. Job type/work location for this test, then, was (CHQ, field). The contingency

table analysis revealed significant results among *function pairs* as they relate to job type/work location, Pearson χ^2 (3, 177) = 7.964, p = .047. Table 32 presents the results of the contingency table analysis.

Table 32

Chi-square Tests for Question Twelve CHQ and Field

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.96[a]	3	.047
Continuity Correctio			
Likelihood Ratio	8.15	3	.043
Linear-by-Linear Association	4.98	1	.026
N of Valid Cases	177		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.97.

Because the contingency table analysis revealed significant results, a crosstabulation was conducted in order to explore comparisons between the two groups (CHQ and field) and the *function pairs*. Table 33 presents the results of the crosstabulation. An examination of the residuals, a residual of 2 or above is considered significant (*SPSS base 10.0 applications guide*, 1999), revealed that there were two significant comparisons regarding location and its relation to interaction code.

The first notable comparison indicated that NF managers were found to be significantly (p = .028) more prevalent at the CHQ and than expected and that they were significantly (p = .28) less represented than expected in the field.

The second notable comparison revealed that SF managers approached ($p = .089$) a significantly more proportionate than expected number in the field and approached a significantly less proportionately common than expected ($p = .089$) number at the CHQ. See Table 33 below for detailed results.

Table 33

Location * Function Pairs Utility Crosstabulation

			Location		
			CHQ	Field	Total
Function Pairs	NT	Count	30	13	43
		Expected Count	27.7	15.3	43
		% within Location	26.3%	20.6%	24%
		Adjusted Residual	.8	-.8	
	NF	Count	33	9	42
		Expected Count	27.1	14.9	42
		% within Location	28.9%	14.3%	24%
		Adjusted Residual	2.2*	-2.2*	
	ST	Count	37	27	64
		Expected Count	41.2	22.8	64
		% within Location	32.5%	42.9%	36%
		Adjusted Residual	-1.4	1.4	
	SF	Count	14	14	28
		Expected Count	18.0	10.0	28
		% within Location	12.3%	22.2%	16%
		Adjusted Residual	-1.7	1.7	
Total		Count	114	63	177
		Expected Count	114.0	63.0	177
		% within Location	100.0%	100.0%	100%
		Adjusted Residual			

Note: *$p < .05$

Summary

The purpose of this study was to investigate the relationship between certain personality variables (*temperament, function pairs, interaction styles*, and *proactivity*), organizational hierarchical level, corporate culture (as influenced by job type/work location), and certain management behaviors as exhibited through power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) used in project planning situations.

The sample consisted of 213 leaders and was taken from a university sponsored management development workshop and from a group of leaders at a northwest utility company. The majority of the participants were male (87.5%), had varying levels of education with 51 leaders holding High School diplomas or GED certificates, 51 with master's degrees, 23 associates degrees, 83 had bachelor's degrees, and 4 held doctorates. Of the participants, 177 were employed at the utility and 36 were students at the management development workshop (PUEC).

The survey data was collected by administering the paper instruments at the PUEC workshop and at a similar workshop held at the utility. The reliability estimates for POINTS ranged from .56 to .77 depending on the tactic measured. The coefficient alpha for the PPS instrument was .84.

The researcher concluded that there were statistically significant findings measured on research questions 1, 4, 5, 6, 10, 11, and 12 with no statistically significant results being found for research questions 2, 3, 7, 8 or 9. In general, the tests revealed significant differences between CHQ and field employees within the utility with regard to personality variables (*temperament, interaction styles, and function pairs*). There were some statistically

significant connections found between some of the POINTS tactics (*counteracting, reasoning, and pressuring*) and some of the independent variables (hierarchical level, *interaction style*, and *function pairs*). There were also significant results reported between several POINTS tactics (*networking, bargaining, pressuring, and counteracting*) and *proactivity*.

No significant relationship was found between any of the personality variables (*temperament, interaction styles, and function pairs*) and hierarchical level. There was also no statistically significant connection found between POINTS tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) and job type/work location or POINTS tactics and *temperament*.

The final chapter contains more detailed information regarding findings and conclusions with recommendations concerning the practical significance of the study and the need for further research.

CHAPTER FIVE

Findings, Conclusions, and Recommendations

Introduction

Practitioners in the field of Human Resource Development, Leadership Development, and Training and Development are constantly working either as individual contributors, consultants, or members of professional staffs. Their aim is to teach skills and techniques to business leaders for the purpose of enhancing the manager's knowledge, skills, and abilities. Some of those abilities revolve around how managers behave and whether they behave effectively in project planning and other leadership situations.

The researcher approached this project as an opportunity to add to the body of knowledge by identifying factors contributing to one's choice of leadership behavior. The result could be that practitioners might better know whether behavior was innate, a function of personality, a function of position, a function of culture, or some combination of these factors. The researcher did not seek to definitively answer all of these questions or to solve the myriad of problems involved in seeking to develop a more effective managerial workforce. Instead, the researcher attempted to move the process of understanding management behavior forward through the present research.

This chapter reveals the results of this study, presents conclusions based on the research, and offers suggestions and conclusions based on the outcomes of the research. This chapter and this study conclude in a presentation of ideas gleaned from the research and suggestions for further study.

Purpose of the Study

The purpose of this study was to investigate the relationships among certain personality variables (*temperament, function pairs, interaction styles*, and *proactivity*), organizational hierarchical level, corporate culture (as influenced by job type/work location), and certain management behaviors as exhibited through power and influence tactics (*reasoning, consulting, appealing, networking, bargaining, pressuring, and counteracting*) used in project planning situations. There are three theoretical constructs and measurement instruments that served as the underpinnings for this study: (a) power and influence tactics measured by the Power and Influence Tactics Scale developed by Yang et al. (1998); (b) personality preferences measured by the Myers-Briggs Type Indicator (Myers et al., 1998); and (c) proactive personality measured by the Proactive Personality Scale (Bateman & Crant, 1993).

Research Questions

This study was designed to arrive at a description of the relationships among personality variables, power and influence tactics, and work-related cultural factors. The twelve research questions described below guided the study and are as follows:

1) Does the use of power and influence tactics as measured by POINTS vary depending on management hierarchical level within the organization in a manner that is statistically significant?
2) Does the use of power and influence tactics as measured by POINTS vary depending on job type/work location within the organization in a manner that is statistically significant?

3) Does the use of power and influence tactics as measured by POINTS vary depending on *temperament* as measured by the MBTI in a manner that is statistically significant?

4) Does the use of power and influence tactics as measured by POINTS vary depending on *interaction styles* as measured by the MBTI in a manner that is statistically significant?

5) Does the use of power and influence tactics as measured by POINTS vary depending on *function pairs* as measured by the MBTI in a manner that is statistically significant?

6) Does the use of power and influence tactics as measured by POINTS vary depending on level of proactivity as measured by PPS in a manner that is statistically significant?

7) Does *temperament* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

8) Do *interaction styles* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

9) Do *function pairs* as measured by the MBTI differ depending on hierarchical level within the organization in a manner that is statistically significant?

10) Does *temperament* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

11) Do *interaction styles* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

12) Do *function pairs* as measured by the MBTI differ depending on job type/work location in a manner that is statistically significant?

Null Hypothesis

The following null hypothesis was tested in this study: There is no significant relationship among power and influence tactics and the examined personality and situational variables (*temperament*, *function pairs*, *interaction styles*, proactivity, organizational hierarchical level, corporate culture). Nor is there any significant relationship between the situational variables examined in the present study. The null hypothesis was tested for rejection at the alpha level of .05.

Research

The empirical research conducted in this study consisted of administering three instruments (MBTI, PPS, and POINTS) to 213 managers from the utility industry. Of the 213 managers, 177 were employed by a single northwest utility and the other 36 participants were drawn from various worldwide energy-related organizations. All of the participants completed the research instruments while attending management development workshops. The 36 participants from worldwide organizations completed the surveys while participating in the Positioning Utility Executives for Change (PUEC) workshop sponsored by the University of Idaho. The 177 managers from a single utility completed their instruments while attending an annual leadership development workshop sponsored by the utility.

Findings

The findings of this research were divided into three categories of inquiry: (a) the power and influence tactics linked to job type/work location or hierarchical level which were addressed by research questions 1 and 2; (b) the power and influence tactics linked to personality constructs which were addressed by research questions 3 through 6; and (c) personality preference linked to job type/work location or hierarchical level was addressed by research questions 7 though 12.

1) Results of the study revealed that first-line managers were significantly more likely to use *counteracting* as a project planning tactic than senior managers and vice presidents. (Research Question 1)
2) The study found no significant connection between power and influence tactics as measured by POINTS and the participants job type/work location. (Research Question 2)
3) There was no significant relationship between the use of power and influence tactics as measured by POINTS and *temperament* as measured by the MBTI. (Research Question 3)
4) Participants who favored the *chart-the-course interaction style* were significantly more likely to choose *reasoning* as a project planning tactic than those favoring the *behind-the-scenes interaction style*. (Research Question 4)

5) Participants who favored the *chart-the-course interaction style* were significantly more likely to choose *reasoning* as a project planning tactic than those favoring the *get-things-going interaction style*. (Research Question 4)

6) Participants who favored the ST *function pair* were significantly more likely to choose *reasoning* as a project planning tactic than those favoring the NT *function pair*. (Research Question 5)

7) Participants who favored the ST *function pair* were significantly more likely to choose *reasoning* as a project planning tactic than those favoring the SF *function pair*. (Research Question 5)

8) Participants who favored the ST *function pair* approached significance in their likelihood to choose *pressuring* as a project-planning tactic over those favoring the NF *function pair*. (Research Question 5)

9) Participants who were the most *proactive* were found to prefer *networking, bargaining, pressuring,* and *counteracting* more than those who were the least *proactive*. Those who scored in the midrange of *proactivity* preferred *bargaining* and *pressuring* more than those who scored at the lowest level of *proactivity*. (Research Question 6)

10) There was no significant relationship between *temperament* as measured by MBTI and hierarchical level within the organization. (Research Question 7)

11) There was no significant relationship between *interaction styles* as measured by MBTI and hierarchical level within the organization. (Research Question 8)

12) There was no significant relationship between *function pairs* as measured by MBTI and hierarchical level within the organization. (Research Question 9)

13) The study revealed that there was a significantly higher proportion of NF *temperaments* than expected in the Corporate Headquarters (CHQ) location within the utility and that there was a larger proportion of SJ *temperaments* in field locations within the utility than expected in a proportion that approached significance. (Research Question 10)

14) There was a higher proportion of the *chart-the-course interaction style* in the CHQ group that approached significance and a significantly lower proportion of that style in the field than would statistically be expected. (Research Question 11)

15) There was a significantly higher than expected proportion of the NF *function pairs* found among CHQ managers than field managers and there was a higher than expected proportion of SF managers among the field managers than among managers working at the CHQ in a proportion that approached significance. (Research Question 12)

Conclusions

1) Based on the first finding, the results of the study suggest that first-line managers were the most likely management group to use the *counteracting* tactic. As a reminder, "Counteracting is a tactic by which the planner blocks efforts of the target or acts in the opposite direction" (Yang et al., 1998, p. 231). Yang proposes that managers invoke this behavior in order to assure that their own interests are protected (p. 131). These results may suggest that first-line managers are less aware of other behavioral options, are less skilled in the use of other tactics, or that their power base is not sufficiently strong to assert their own agenda using other behavioral tactics. This conclusion appears likely due to the fact that the more seasoned senior level managers were not as inclined to use the *counteracting* tactic.
2) Based on the second and third findings, the present study suggests that there was no connection between POINTS and job type/work location was there any apparent connection between POINTS and *temperament.*
3) Based on the fourth finding and fifth findings, the results of the study indicate that those participants who prefer the *chart-the-course interaction style* were more likely to employ *reasoning* as a project planning tactic than those who preferred the *behind-the-scenes* or the *get-things-going* style. As a reminder, *reasoning* is defined as "the planner's utilization of logic or factual evidence in order to persuade the target that a request is both viable and logically congruent with common interests" (Yang et al., 1998, p. 230).

Those with the *chart-the-course* style typically possess several particular talents, among which are that they: (a) "outline and plan agendas and logistics"; (b) "foresee how people will respond"; (c) "figure out what needs to be done"; (d) "devise a plan"; and (e) "give guidance" (Berens, 2001, p. 24). And, according to Linda Berens (2001, p. 24), their core belief is that "It's worth the effort to think ahead to reach the goal." The *behind-the-scenes* interaction has a different set of talents whereby they: (a) "support others"; (b) "clarify values"; (c) "search for commonalities"; (d) "reconcile inconsistencies"; and (e) "encourage participation" (Berens, 2001, p. 25). The *get-things-going* style's talents are: (a) "share insights"; (b) "discover new ways of seeing things"; (c) "explore options"; (d) "catalyze and energize"; and (e) "facilitate" (Berens, 2001, p. 25).

It is not surprising that the *interaction style* that is the most planful, *chart-the-course*, would prefer a tactic that emphasizes logic and facts with an end to persuasion. The *chart-the-course* style is very much in contrast to *behind-the-scenes* and *get-things-going* in that *chart-the-course* individuals are prone to anticipate, *behind-the-scenes* individuals are predisposed to integrate, and *get-things-going* people are apt to favor involvement. According to Berens (p. 37) the latter two are driven toward "informing" while the first (*chart-the-course*) is more apt to practice "directing".

4) Based on the sixth and seventh findings, the research suggests that those favoring the ST *function pair* were more likely to implement the *reasoning* tactic than either managers favoring the NT or the SF *function pairs*. Those indicating the ST *function pair* tend "to solve problems by reliance on past experiences, and they dislike ambiguity"

(Myers et al., 1998, p. 49). The STs have an incredible head for accurate detail. STs typically possess large amounts of factual and experiential information.

The NT function pair is interested in theory and values "expertise, logical consistency, concepts and ideas" (Myers et al., 1998, p. 62). Myers goes on to say that the NT prefers "strategic analysis," relationships, and goals. They love to develop multiple plans, models, and contingencies (p. 62), and their focus is often on structure (p. 44). The SF function pair is much like the ST in its interest in the facts. But their decisions are more subjective because of their reliance on their values for decision-making. They are "more interested in facts about people than facts about things" (Myers et al., 1998, p. 41).

The researcher concluded that, though both the NT and ST *function pairs* are interested in logic and evidence, it might be the type of evidence that separated the two in this study. Those preferring NT *function pair* are typically more attracted by theories and possibilities while the ST focuses more on experience and sensory data; thus the propensity of the ST to use *reasoning,* a behavior that emphasizes viability, as a tactic.

At the same time, according to the Yang model, *reasoning* "is a rational strategy of persuasion that happens in a relatively ideal situation where the power relations are symmetrical and the legitimate interests are consensual. The planner uses facts and data to support the development of a logical argument when the task objectives are clearly attainable" (Yang et al., 1998, p. 230). Because of the propensity of the NT to use logic and discern internal principles as well as their ability to see the big picture and plan accordingly (Kroeger & Thuesen, 1992), the

researcher remains unconvinced that the differences suggested by this sample are consistent with prior research and type theory. More study would be required to lend credence to this finding and to suggest implications that could potentially more clearly differentiate NT and ST regarding the *reasoning* tactic.

The suggestion that ST was more likely to use reasoning than SF was less difficult to grasp. The ST focuses more on logic while the SF focuses more on values as a foundation for decision-making (Keirsey, 2000; Kroeger & Thuesen, 1992; Myers et al., 1998).

5) Based on the eighth finding, the results of the present study suggest that those preferring the ST *function pair* are more likely to choose the *pressuring* tactic than those who prefer NF. As a reminder, "Pressuring refers to the planner making direct and forceful demands or threats to the target even through the presence of resistance" (Yang et al., 1998, p. 231).

While the ST manager is logical and direct, concentrating on solid evidence to make decisions, the NF could not be more different. "NF managers are positive, affirming idealists whom others may like, but whose warm style makes it difficult for others to disagree with them. NF managers often have difficulty being firm supervisors and tend to give workers too much leeway" (Kroeger & Thuesen, 1988, p. 53). The results of the present study were consistent with the tendencies documented by type research (Keirsey, 2000; Keirsey & Bates, 1978; Kroeger & Thuesen, 1988;, 1992; Myers et al., 1998; Myers & Myers, 1995).

6) Based on the ninth finding, the results of the present research suggest that no significant relationship exists between level of proactivity and the choice of power and influence

tactics as measured by POINTS after having analyzed the entire sample. When analyzing the utility by itself, however, several significant relationships were revealed.

Those who were the most proactive were more likely to choose *networking bargaining, pressuring,* and *counteracting* as project planning tactics than those who scored at the low end of the Proactive Personality Scale (PPS). Those who scored in the midrange were more likely to select *bargaining pressuring,* and *counteracting* than those who scored at the lower end of the PPS.

These findings are not consistent with the model proposed by Yang (1996) where proactive persons were hypothesized to prefer *exchanging, reasoning, appealing,* and *pressuring,* while those who are less proactive would more likely prefer *bargaining, consulting, networking,* and *counteracting* (p. 79).

The present research produced results somewhat different than those reported by Ludgate (2001) where she found *reasoning, consulting, appealing, networking,* and *bargaining* being preferred by more proactive people while less proactive individuals preferred *pressuring* and *counteracting* (p. 105).

7) Based on the tenth, eleventh, and twelfth findings, the results of the present research suggest that no significant relationship exists between *temperament, interaction styles, or function pairs* regarding hierarchical level within the organization. It is apparent that in the sample studied and on the basis of the personality models tested, there is no stratification of personality type within the hierarchy of the organization.

8) Based on the thirteenth and fifteenth findings, the present research suggests that intuitive types, particularly the NF *temperament* and *function pair,* were proportionately more

prevalent in the Corporate Headquarters (CHQ) of the utility than in the field locations and that the sensing types, particularly SJ *temperament* and SF *function pair*, were significantly more prevalent in the field locations than in Corporate Headquarters. Additionally, NT was proportionately more common in the CHQ and SP was proportionately more common in the field but neither of those proportions was statistically significant. . In fact, additional follow-up tests revealed that the intuitors appeared more frequently than expected at the PUEC ($p = .021$) and CHQ ($p < .001$) and sensors were more numerous than expected in the field ($p < .001$).

This evidence suggests that it is possible that individuals preferring these personality types self-select into jobs requiring their natural orientation to life and work. For instance, the sensing types (SJ, SP) tend to focus on the present, rely on "standard ways to solve problems," are comfortable with the routine, are steady workers, and favor a logical and experience-driven approach (Myers et al., 1998, p. 287). This is in direct contrast to the intuitives (NT, NF) who are more future oriented, work in bursts of energy, enjoy complexity, do not enjoy the routine, are big-picture oriented often seeing the forest and overlooking the trees, and like solving new problems (Myers et al., 1998, p. 287). The intuitives are more comfortable "thinking out of the box" while the sensors tend to like the "box" just fine.

9) Based on the fourteenth finding, the results of the current study suggest that there was a larger proportion of managers who exercised the *in-charge interaction style* in field locations within the utility than in either the PUEC group or the CHQ group that approached significance. PUEC managers preferred the *in-charge* style in a proportion that was significantly lower than expected. The *in-charge* style is

characterized by: (a) pushing for completion; (b) leading the group to a goal; (c) making quick decisions; and (d) being very results focused (Berens, 2001, p. 33). Given that the field locations are focused on construction and maintenance of power supply and delivery systems as well as resolving power loss and customer issues, such a style appears to the researcher to be altogether appropriate and understandable.

At the same time, the research showed that proportionately more *chart-the-course* managers existed in the CHQ locations than in the field. The *chart-the-course* style is characterized by: (a) pushing for a plan; (b) keeping the group "on track"; (c) making "deliberate decisions"; and (d) "defining the process focus" (Berens, 2001, p. 33). This style is more planful and guiding where the *in-charge* style is more in-the-moment and task-oriented. These two styles appear to the researcher to be consistent with the administrative and design focus of the CHQ employees as opposed to the construction and even emergency work of the field.

The findings of the present study dealing with the most complex relationships are summarized in the following tables. Table 34 presents the relationships discovered between personality variables and location. Table 35 shows relationships discovered between power and influence tactics and management level. Table 36 shows connections found between *interaction styles* and power and influence tactics. Table 37 presents the relationships between *function pairs and temperaments* and power and influence tactics.

Table 34

Location vs. Personality Variables

	Location		
Personality Variable	PUEC	CHQ	Field
NF		> Expected	< Expected
NT			
SF		< Expected	> Expected
ST			
SP			
SJ		< Expected	> Expected
In-Charge			
Chart-the-Course		> Expected	< Expected
Get-Things-Going			
Behind-the-Scenes			

Table 35

Management Level vs. Power and Influence Tactics

	Management Level		
Power and Influence Tactic	First-Line	Manager	Sr. Manager/VP
Reasoning			
Consulting			
Appealing			
Networking			
Bargaining			
Pressuring			
Counteracting	> Sr. Mgr./VP		< First-Line

Table 36

Interaction Style vs. Power and Influence Tactics

Power and Influence Tactic	Interaction Style			
	In-Charge	Chart-the-Course	Get-Things-Going	Behind-the-Scenes
Reasoning		> BTS > GTG	< CTC	< CTC
Consulting				
Appealing				
Networking				
Bargaining				
Pressuring				
Counteracting				

Note: BTS = Behind-the-Scenes; GTG = Get-Things-Going; CTC = Chart-the-Course

Table 37

Function Pairs and Temperaments vs. Power and Influence Tactics

Power and Influence Tactic	Function Pairs/Temperament					
	NT (Func Pair)	NF (Func Pair)	ST (Func Pair)	SF (Func Pair)	SJ (Temp)	SP (Temp)
Reasoning	< ST		> NT > SF	< ST		
Consulting						
Appealing						
Networking						
Bargaining						
Pressuring		< ST	> NF			
Counteracting						

Practical Implications: Final Conclusions

This study has convinced the researcher that people are widely diverse and that they have an amazing ability to find their niche in their world of work. The researcher wrote a master's thesis in 1983 that dealt with the homogeneous unit principle (D. W. Barnes, 1983).

That principle basically asserts that people prefer to associate with individuals who are much like themselves. We are surrounded with evidence of the truth of the homogeneous unit principle: (a) private golf and country clubs, (b) gated residential communities, and (c) Harley-Davidson owners groups. We find natural separation in the workplace too.

The researcher uncovered only one significant difference between the PUEC group and the utility's CHQ and field locations and this difference was introduced in this study's ninth conclusion. When comparing the three groups, there was a slight preference for *get-things-going* within the PUEC sample and a slight preference for *in-charge* in the Field, but neither in proportions that were statistically significant. The statistically insignificant trend shown by the PUEC group would imply that they prefer the *get-things-going interaction style* where the leader is likely to explore possibilities and lead through sharing insights, energizing others and employing a facilitative style. Field locations were significantly less likely to prefer the *chart-the-course* style than the PUEC and CHQ groups. Much more study would be required in order to establish or dismiss these possible trends among PUEC participants. The most revealing and significant differences between groups were found within the utility itself.

The field contains 40 percent of all first-line supervisors within the company, while only 30 percent of all managers of any level are located in the Field, so the following comments regarding traits attributed to first-line supervisors especially apply to field locations. First-line supervisors were much more likely to utilize the counteracting tactic than senior managers and vice presidents (see this study's first conclusion). The counteracting tactic involves blocking the other person or moving in the opposite direction. The field leaders appeared to be somewhat more likely to possess the *in-charge and behind-*

the-scenes interaction styles while CHQ leaders were far more likely to choose the *chart-the-course* style. It could be that the combination of these preferences suggests a remnant of the old "commanding" and "controlling" management functions identified by Henri Fayol. Perhaps, in the case of the utility, these are the techniques used in many construction crews where doing it "right" and doing it "now" may save someone's life or be just plain expedient in a world of deadlines, concrete expectations, and tight schedules. Of course, the use of the *counteracting* tactic was commonly used among many lower-level managers who may perceive that they are limited in the range of tactics available for influencing others.

The field personnel were far more likely than CHQ workers to have the sensing types ($p < .001$) where the CHQ leaders were significantly more likely to prefer the intuitive styles ($p < .001$). This difference translates to an important cultural bifurcation. The CHQ people tend to be future-oriented possibility thinkers. They typically enjoy change and enjoy visioning and creating a new environment. The more sensing field people, especially the SJ *temperament*, are more resistant to change, particularly change that appears to have no practical purpose. The field managers and those they lead often have physically hard and even dangerous work to perform. They like the security of the familiar, knowing precisely how to perform their duties. They take comfort in knowing the rules and expectations associated with their jobs.

Herein lies a cultural impasse that understandably might exist between field managers and supervisors and their counterparts in the home office, especially higher-level managers. The world of the senior manager and above is a strategic one. They need to anticipate changes in the marketplace and plan to find ways to take advantage of those changes or at least survive in an uncertain world. In contrast, the field supervisor often just wants to build

that new line, replace the blown transformer, or rewind the massive generator. The CHQ leader is more interested in questions like "what if?" or "why?" or even "how?" while the supervisor in the field is more concerned with "what?" and "where?" types of questions.

There is no right or wrong attached to these differences, they are simply differences that deserve to be acknowledged. CHQ-based leaders might realize more satisfying and effective communication with field managers if they are able to discern these differences in style and value them. Supplying field personnel with solid reasons for requests and changes to their established routine is a reasonable place to start. If those requests could be converted into rules and procedures, that would be better still.

Leaders in field locations would do well to understand and value the propensity of CHQ managers to dream, design, plan, and vision. Though these actions may appear to some leaders, especially those in the field, to have no immediate practical consequence, they are necessary for the long-term health of the organization. Field managers probably should be reminded of the purpose behind the strategic planning and visioning activities that seem to require so much attention at the "head office" and numerous informational meetings in the field.

The difference between these groups is often a function of job requirements and responsibilities. Those differences are complicated by the fact that, in general, managers at these various locations have personality preference and even behavioral differences that positively support their job roles. Such differences in orientation can get in the way of seamless communication and collaboration with managers in the other environment. Managers in the CHQ and the field often, but not necessarily, behave differently because of innate style differences, job requirements, culture, and learned behavior.

There are implications that reach beyond communication and collaboration. For example, performance evaluation is often an uncomfortable exercise for both supervisor and employee at any level. Understanding culture and style differences may be useful during the evaluation process. Differences such as these do not and can not explain or excuse poor performance, but they can be useful in helping the various parties understand differences of opinion around what is or is not desirable behavior. It is possible that managers judge the performance of others based on the cultural norms in their surroundings that simply do not apply in the environment of the one being evaluated. The results of studies such as this, when communicated to the appropriate audience, can be useful tools in helping others understand and learn from the implications of the cultural and style differences among both individuals and various work groups and business units.

From the adult education perspective, this is an opportunity to explore ways to teach management behaviors or power and influence tactics that may be foreign to individual managers or groups of managers. Depending on the situation, any leader could find it more effective to employ *reasoning* over *pressuring* or *networking* over *counteracting*. *Bargaining* and *appealing* may be perfectly appropriate approaches depending on the situation where *consulting* and even *counteracting* might work better under another circumstance.

The research conducted to date has revealed nothing that compels a leader to implement a particular power and influence tactic. The pressures of culture, position, habit, and personality preference may strongly influence but not determine one's use of tactics. Consequently, the possibility of learning to intentionally select appropriate tactics based on a

given situation certainly exists. The researcher suggests a guide to the situational use of Yang's power and influence tactics in the following table (Table 38).

Table 38

Guide to the Situational Use of Power and Influence Tactics

	Complex problem solving and investigation	Human relations and matters of image, identity, or values	Extreme urgency possibly involving safety or legal issues	Situations requiring a team effort and multiple perspectives	Negotiations between groups where quid pro quo is appropriate	Situations requiring consensus, shared power, or multiple perspectives	Situations involving abuse of power, violation of policy, or errors of judgment
Reasoning	☒						
Appealing		☒					
Pressuring			☒				☑
Consulting	☑			☒		☑	
Bargaining				☑	☒		
Networking	☑			☑		☒	
Counteracting			☑				☒

☒ Recommended use of tactic
☑ Possible use of tactic

From the organization development perspective, the differences discovered within the utility call to attention the importance of understanding the culture within an organization. Cultural assessments of various forms can identify significant differences between and among the work groups in any organization. Without understanding such differences and the potential implications of those differences the likelihood of selecting and applying effective organization development interventions is greatly decreased.

Function pairs, *temperaments*, *interaction styles*, and power and influence tactics are interesting ways to attempt to measure leadership style, personality preference, and human

behavior. These constructs can potentially have practical and useful benefits when they are presented to leaders with the aim of helping them to better understand their preferences, behaviors, and their relationships with others. None of the preferences or behaviors addressed in this study is inherently good or bad. Instead, they illuminate differences that, when understood and appreciated, might lead to better and more effective leadership practice and interpersonal relationships.

Recommendations for Further Research

This study extended the work of Ludgate (2001) who found a significant relationship linking proactivity, gender, some MBTI dimensions particularly Extraversion/Introversion and Thinking/Feeling, birth order and target relationship to the use of power and influence tactics. In addition to the connections suggested by Ludgate, the present study added hierarchical level (as revealed in the first conclusion), *interaction styles* (as revealed in the third conclusion), and *function pairs* (as revealed in the fourth conclusion) to the list of constructs potentially influencing one's selection of power and influence tactics.

More research is warranted to confirm the findings of this study and those of the Ludgate dissertation. Both the present study and the Ludgate study involved leaders from business settings. Future researchers might consider replication studies involving samples taken from educational, religious, or non-profit settings.

Yang's three-dimensional model is both complex and rich. More study is warranted in order to explore possible connections between POINTS and other instruments like John Geier's DiSC® instrument or the Thomas-Kilmann Conflict Styles instrument. Yang himself agreed that, because his model is three-dimensional, testing the various slices of his model might prove to be a fruitful study (personal communication, October 29, 2002). The following table (Table 39) summarizes the various dimensions of Yang's POINTS model and their related tactics. Each of the dimensions is worthy of further investigation regarding other constructs that might relate to those dimensions as well as verification that the dimensions do, indeed, relate to the tactics as hypothesized.

Table 39

Dimensions of the POINTS model

Dimension	Tactics
Proactive	Exchanging Pressuring Reasoning Appealing
Reactive	Bargaining Counteracting Consulting Networking
Conflictual	Exchanging Pressuring Bargaining Counteracting
Consensus	Reasoning Appealing Consulting Networking
Symmetrical	Reasoning Exchanging Bargaining Consulting
Asymmetrical	Appealing Pressuring Networking Counteracting

More research is required in order to determine whether personality variables like *function pairs* (as suggested in the eighth conclusion) and *interaction styles* (as suggested in the ninth conclusion) are predictably different between field and headquarters locations. In

other words, do homogeneous groups consistently display personality preferences that are individually and collectively consistent with the type of work they perform?

Further research within any given organization would be helpful in determining cultural differences between and among employee groups (as investigated in the sixth conclusion). Identifying differences in personality variables, educational attainment, or differences in dominant age groups within and between locations or business units could be helpful in explaining conflict, communication difficulties, or differences in core values.

Much has been made of leadership development as an activity designed to increase the effectiveness of an organization's management team. The present research study suggests that (based on the first, third, fourth, fifth, and sixth conclusions) managers do choose to implement several of the studied power and influence tactics in rather predictable patterns. Among the tactics which most frequently showed significant connections to the constructs investigated in this study were *counteracting* and *pressuring* (based on the first, fifth, and sixth conclusions), two of the tactics one would presume to be quite negatively perceived. Pressuring and counteracting may have negative connotations partly because they could be associated with heavy-handed or avoidant means of delivering power.

Though the word "power," regardless of its means of delivery, often has negative connotations within our society, perhaps it is time to investigate ways to become more effective at methods of exercising power in a manner that would not be so negatively perceived. "Powership" could be a new element under the umbrella of leadership development. The effective and intentional choice of various behaviors available to persons in power positions might be exceptionally valuable depending on the situation or need. Instead of relying on *counteracting*, for instance, a leader exercising intentional "powership"

might choose *appealing* or *consulting* instead with more positive results for the leader, the target, and the organization. Along with teaching the skill of selecting a tactic purposefully, those responsible for developing leadership skills might also provide guidance on how to use a given tactic gracefully and with empathy. "Powership" is a fertile field for further research.

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Appendix A: Protocol Approval

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MEMORANDUM

To: David W. Barnes
11878 West Flintlock Dr.
Boise, ID 83713

FROM: Mike Laskowski, Ph.D., Chair
Human Assurances Committee

DATE: May 14, 2002

SUBJECT: Approval of "Doctoral Dissertation: A study of power and influence tactics and personality and demographic variables"

On behalf of the Human Assurances Committee at the University of Idaho, I am pleased to inform you that the above-named proposal is approved as offering no significant risk to human subjects. This approval is valid for one year from the date of this memo. Should there be a significant change in your proposal, it will be necessary for you to resubmit it for review. Thank you for submitting your proposal to the Human Assurances Committee.

Michael Laskowski

Michael B. Laskowski

MBL/ca

Appendix B: POINTS and PPS Instruments

Modified POINTS Instrument

Power and Personality Research

My name is David Barnes and I am a doctoral student at the University of Idaho, Boise Center. I am conducting research for my dissertation on the relationship between personality type and the use of power and influence by Energy Industry managers. This research uses 3 surveys:

1. POINTS: Evaluates the power and influence tactics used in project planning.
2. Proactive Personality Scale (PPS): Measures degree of proactiveness
3. Myers-Briggs Type Indicator (MBTI): Measures personality type

Completing these surveys will take no more than 20 - 30 minutes of your time and there are no right or wrong answers. Very importantly, if you have taken the MBTI in the past, I ask you to take it once again so your current scores can be matched together with the other surveys. You are under no obligation to complete these surveys and your results will be strictly confidential.

What's in it for you? Upon taking this confidential survey, if you would like the research results sent to you, there is a location below for you to make your request.

Date:	First Name:	Last Name:
Company Name and Location:	Business Unit or Subsidiary:	How long at this company? ---------- years.
Highest Level of Education: ❑ GED ❑ Associates Degree ❑ BA/BS ❑ Masters Degree ❑ Doctorate Degree	Have you ever taken the POINTS instrument before? ❑ Yes ❑ No	Leadership Level: ❑ First Line ❑ Manager ❑ Senior Manager ❑ General Manager/VP ❑ Senior Executive
Would you like the research results emailed to you? ❑ Yes ❑ No		My email address:

POINTS Part I: PROJECT PLANNING SITUATION

Directions:

1. Please recall a project you planned with at least one other person.
2. Identify one person with whom you interacted frequently while planning this project. This person will be referred to as *<the person>* in the following statements.
3. Read each of the following statements and then circle the number that best represents your opinion.
4. Although we will not ask you to identify the person, please indicate the person's relationship to you by checking one of the following:

[ ] Your supervisor
[ ] Your subordinate
[ ] Your colleague in your organization
[ ] Someone outside your organization

5. Now, keep this person in mind and answer each of the following 8 questions:

Describe your interactions during the planning process with the person] you have identified.						
1. <The person> and you clearly had different visions for this project.	1	2	3	4	5	6
2. <The person> and you had competing personal agendas for this project.	1	2	3	4	5	6
3. <The person> and you had conflicting interests for this project.	1	2	3	4	5	6
4. <The person> and you were pursuing different goals for this project.	1	2	3	4	5	6
5. <The person> and you were unwilling to share the resources you each controlled.	1	2	3	4	5	6
6. <The person> could offer rewards to you if you cooperated with him/her.	1	2	3	4	5	6
7. <The person> had power to apply pressure or penalize you if you failed to cooperate with him/her.	1	2	3	4	5	6
8. Overall, <the person> had more power than you during the planning process.	1	2	3	4	5	6

POINTS PART II:

POWER AND INFLUENCE TACTICS

Directions:

1. Consider the project you previously identified.
2. Think about the person you previously identified. This person will again be referred to as [the person] in the following statements.
3. Please look at the tactics listed below and indicate how effective each one *would have been* in influencing [the person] during the planning process.
4. In reading the statements, please keep in mind that we are not asking you what tactics you actually used during the planning process--or even whether you believe that a given tactic should have been used. We are simply asking you to judge the likely effectiveness of each tactic if you had, in fact, used it in your dealing with <the person>.

How effective would each of these tactics have been in influencing this person?						
9. Asking <the person> for suggestions about your plan.	1	2	3	4	5	6
10. Getting other people to help influence <the person>.	1	2	3	4	5	6
11. Convincing <the person> that your plan is viable.	1	2	3	4	5	6
12. Promising to support future efforts by <the person> in return for his or her support.	1	2	3	4	5	6
13. Repeatedly reminding <the person> about things you want done.	1	2	3	4	5	6
14. Offering to do some work for <the person> in return for his or her support.	1	2	3	4	5	6
15. Asking <the person> if he or she has any special concerns about your plan.	1	2	3	4	5	6
16. Linking what you want <the person> to do with efforts made by influential people in the organization.	1	2	3	4	5	6
17. Communicating your plan in an ambiguous way so that <the person> is never quite clear about it.	1	2	3	4	5	6
18. Presenting <the person> with facts, figures and other data that support your plan.	1	2	3	4	5	6
19. Offering to do a personal favor in return for <the person's> support for your plan.	1	2	3	4	5	6

20. Indicating your willingness to modify your plan based on input from <the person>.	1	2	3	4	5	6
21. Simply insisting that <the person> do what you want done.	1	2	3	4	5	6

low effective would each of these tactics have been in nfluencing this person?						
22. Obtaining support from other people before making a request of <the person>.	1	2	3	4	5	6
23. Taking action while <the person> is absent so that he or she will not be included in the planning process.	1	2	3	4	5	6
24. Using logical arguments to convince <the person> to support your plan.	1	2	3	4	5	6
25. Saying that <the person> is the most qualified individual for a task that you want done.	1	2	3	4	5	6
26. Offering to speak favorably about <the person> to other people in return for his or her support.	1	2	3	4	5	6
27. Indicating that you are receptive to <the person's> ideas about your plan.	1	2	3	4	5	6
28. Withholding information that <the person> needs unless he or she supports your plan.	1	2	3	4	5	6
29. Telling <the person> that you refuse to carry out those requests that you do not agree with.	1	2	3	4	5	6
30. Demonstrating to <the person> your competence in planning the project.	1	2	3	4	5	6
31. Waiting until <the person> is in a receptive mood before making a request.	1	2	3	4	5	6
32. Raising your voice when telling <the person> what you want done.	1	2	3	4	5	6
33. Showing <the person> the relationship between your plan and past practices in your organization.	1	2	3	4	5	6
34. Making <the person> feel good about you before making your request.	1	2	3	4	5	6
35. Challenging <the person> to do the work your way or to come up with a better plan.	1	2	3	4	5	6

36. Making <the person> feel that what you want done is extremely important.	1	2	3	4	5	6
37. Demanding that <the person> do the things you want done because of organizational rules and regulations.	1	2	3	4	5	6
38. Appealing to <the person's> values in making a request .	1	2	3	4	5	6
39. Asking other people in your organization to persuade <the person> to support your plan.	1	2	3	4	5	6

Proactive Personality Scale

	Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
40. I am constantly on the lookout for new ways to improve my life.	1	2	3	4	5	6	7
41. Wherever I have been, I have been a powerful force for constructive change.	1	2	3	4	5	6	7
42. Nothing is more exciting than seeing my ideas turn into reality.	1	2	3	4	5	6	7
43. If I see something I don't like, I fix it.	1	2	3	4	5	6	7
44. No matter what the odds, if I believe in something I will make it happen.	1	2	3	4	5	6	7
45. I love being a champion for my ideas, even against others' opposition.	1	2	3	4	5	6	7
46. I excel at identifying opportunities.	1	2	3	4	5	6	7
47. I am always looking for better ways to do things.	1	2	3	4	5	6	7
48. If I believe in an idea, no obstacle will prevent me from making it happen.	1	2	3	4	5	6	7
49. I can spot a good opportunity long before others can.	1	2	3	4	5	6	7