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MICRO AND MACRO-LEVEL COMMUNICATION COMPETENCE IN RELATION TO ETHICS: DOES IT REALLY MATTER WHAT LEADERS AND ORGANIZATIONS SAY, AS LONG AS THEY SAY IT WELL?

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David Michael Gesler
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DEDICATION

This dissertation is dedicated to my family: Ashley, Eleri and Gwyneth Gesler. I have discovered with their love and support, anything is possible.

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ABSTRACT

This study examines the relationship between leadership communication competence and ethics. To date, limited research has been directed toward exploring how ethics and ethical issues contribute to communication competence. The study employs an ecological model of communication competence as a framework from which to explore this topic. The ecological model suggests that communication competence can be measured at four levels: the micro-level, the meso-level, the macro-level, and the exo-level. This study is designed to examine leadership and ethics at two of these levels of communication competence: the micro-level and the macro-level. The purpose of this project is to explore, from the receiver perspective, the role ethics play in leadership communication competence at a micro (individual) level and at a macro (organizational) level.

The results of this study indicate that a strong, positive relationship between ethics and leadership communication competence exists at both an individual (micro) level and at an organizational (macro) level. The results also indicate that this relationship, in general, is not influenced by demographic characteristics.

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CHAPTER I

INTRODUCTION

Since its inception, the study of leadership has involved communication and the notion of ethics. As Bass (1990) observes,

> In 2300 B.C. in the Instruction of Ptahhotp, three qualities were attributed to the Pharaoh. "Authoritative utterness is in thy mouth, perception is in thy heart, and thy tongue is the shrine of justice" (Lichtheim, 1973). The Chinese classics, written as early as the sixth century B.C., are filled with hortatory advice to the country's leaders about their responsibilities to the people. Confucius urged leaders to set a moral example and to manipulate rewards and punishments for teaching what was right and good (p. 3).

More recently, contemporary scholars (e.g., Schein, 1985; Yukl, 1998) continue to suggest that leaders should act and communicate in certain ways. That is, leaders should interact with people in such ways that they are perceived to be "shrines of justice," "a moral example," and to teach what is "right and good."

Communication and ethics are important components in most, if not all, leader activities. Perhaps the most important and frequent behaviors leaders engage in are communication related. Consistent with this view, Bass (1990) simply calls leaders "communicators." Since they tend to communicate frequently, leaders of organizations are expected to be effective communicators (Adler & Elmhorst, 2002; Bass, 1990; Yukl, 1998). Leaders' communication abilities are the most important behaviors related to effectiveness as "the credibility of a manager's communications [sic] depends on his or

her competence, esteem, personality, dynamism, character, and perceived intentions" (Bass, 1990 p. 341). The term "perceived intentions" indicates an element of ethical communication that Bass (1990) infers affects leaders' competence, which in turn, impacts leaders' effectiveness.

Few would dispute the importance of the relationship between communication competence and ethics within the context of the leadership process (Bass, 1990; Klauss & Bass, 1982). However, to date, the concepts of communication competence and ethics have often been studied in isolation (Jablin & Sias, 2001). Although a substantial number of factors are believed to contribute to competence (see Spitzberg & Cupach, 1984), little attention has been directed toward the contribution of ethics or ethical behavior to perceptions of communication competence (Carpenter, 1988; Duran, 1983; Eadie & Paulson, 1984; Ford, 1985; Jablin & Sias, 2001; Simmons & Anderson, 1986). In the same vein, the concept of ethics and ethical behavior has not been researched in relation to communication or communication competence (e.g., Chismar, 2001; Minkes et al., 1999; Nixon & West, 1993). Moreover, the study of communication competence is made more problematic by the variable-analytic perspective often embraced by competence scholars, as a multitude of different variables have been examined in relation to communication competence often without connecting the researched variables to communication competence as a whole. Jablin and Sias' (2001) Ecological Model of Communication Competence represents an attempt to bring conceptual coherence to the fragmented literature involving communication competence.

The model advanced by Jablin and Sias (2001) is based on the ecological perspective developed by Bronfenbrenner (1979). The ecological perspective advanced

by Bronfenbrenner (1979) was initially developed as a framework to guide our understanding of child development. Jablin and Sias (2001) adapted it for use in the workplace to account for communication competence in organizational settings. At its core, the ecological perspective asserts that the interactions between individuals and their environments are mutually shaping; each impacts the other. Growth and development are believed to depend heavily on environments. The key idea, according to Bronfenbrenner, is the notion that it is the "perceived" reality within an environment that influences people, and not necessarily the environment as it exists in "objective" reality. He argues that the perceived environment consists of four levels of structure: the microsystem, the mesosystem, the exosystem, and the macrosystem.

The first level within the ecological perspective is the microsystem. At this level, the focus is on direct, interpersonal interaction with one or two other people. The second level, the mesosystem level, includes the interrelationships between smaller environments, such as the relationship between two or more work-groups within a specific organization and its effect on an individual. According to Bronfenbrenner (1979), the more diverse these relationships are, the more influential the environments become to those involved.

The exosystem is the third level of the ecological perspective. At this level, the environment is conceived of as having an indirect impact on the individual. For example, employees at a certain organization may be impacted by the decisions of one of the organization's suppliers that, in turn, affects the rest of the organization. The fourth and final level of the ecological perspective is the macrosystem. This level represents the dynamic "culture" or "blueprint" that frames the previous levels.

Utilizing the ecological perspective, Jablin and Sias (2001) argue that communication competence occurs at several different levels within organizations, and that each of these levels mutually influences the others (e.g., the microsystem influencing the macrosystem, and vice-versa). In general, communication competence research has focused only on the microsystem (individual) with regard to leaders and has tended to ignore the macrosystem (organization) involving organizational communication competence (Jablin & Sias, 2001). This study examines the relationship between leadership communication competence and ethics. The purpose of this study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. There are competing ways of conceptualizing communication competence, which are discussed subsequently.

Communication competence can be investigated from either a leader perspective or from an observer perspective. Much of the communication competence research has been conducted from an 'actor' point of view, meaning that people would judge their own communication competence (Parks, 1994). However, numerous studies have shown that people's judgments of their own competence often do not match with observers' judgments of that same person (e.g., Parks, 1994; Spitzberg & Hecht, 1984). Therefore, researchers also conduct studies of communication competence from an observer point of view in addition to an actor point of view (e.g., Cooper, 1997; Haas & Arnold, 1995; Maes, Weldy, & Icenogle, 1997) to get a more complete picture of a person's communication competence. When asking an observer about another's communication

competence, in general, that person will describe the other's communication competence based upon some form of mental categorization employed by the observer.

A number of studies involving judgments of communication competence in the workplace (e.g., Haas & Arnold, 1995; Sypher & Zorn, 1986) operate from a social-cognitive perspective. Social cognition is the collection of thoughts people have about human interaction. These thoughts may be focused on self, others or behaviors, and organized in some method of categorization, such as grouping by attitudes, implicit theories or by scripts and schemas (Roloff & Berger, 1982). Followers are in the unique position to make judgments and critique leaders on their communication effectiveness based upon factors employed by these organizational members with regard to conceptions of communication competence within leaders. In other words, leadership communication competence is in the eye of the beholder (Cunningham, 1997). As Pavitt and Haight (1986) describe,

> An equally important issue when seeking a complete understanding of effective interaction is the process by which perceivers evaluate the competence of interactors they are observing. The study of this process is most profitably approached from the standpoint of social cognition. From this standpoint, a perceiver's evaluation of a communicator's competence is made in terms of a system of beliefs about the evaluative implications of the communicator's behaviors. The process of competence evaluation cannot be understood independently of a model representing the manner in which these beliefs are 'structured' (p. 221).

Thus, it is important to gain the observers' perspective and through the social cognitive perspective, understand how observers process what they perceive when researching leadership and organizational communication competence. In gaining observers' perspectives and thought processes of leaders' communication competence, the observers' notion of ethics in relation to leaders' communication competence needs to be addressed.

Over the past 25 years, scholars (e.g., Bass 1990; Morely & Shockley-Zalabak 1991; Pettigrew 1979; Schein 1983, 1985; Yukl 1998) have consistently observed leaders are able to create and influence an organization through communication. As such, perhaps the leaders of certain "unethical" organizations are competently communicating to their organizations, but perhaps this is not enough to create and maintain an ethical culture within the organizations. Ethics can be defined as behaviors people engage in that are representative of the right thing to do and the wrong thing to do in a given setting and situation. For example, a leader might seem to act and communicate in an ethical manner, but perhaps the rules of the organization (which the leader developed) dictate a salesperson must reach a certain, unrealistic (e.g., unattainable) new accounts quota each month. Even though the leadership of the organization might be ethically inclined, due to other factors within the organizational culture, employees (specifically salespeople) may act in unethical manners (such as inflating new accounts statistics) to keep their jobs, despite the efforts of the organizational leadership. On the other hand, one could argue that these leaders really were not ethical and did not include ethics as a part of their conception of communication competence (perhaps the leaders knew the new accounts quota was unattainable, but included it in organizational rules anyway and threatened

employees with dismissal if the quota was not attained, to 'motivate' the sales force and boost business), and therefore influenced the organization as a whole to be unethical. Jablin and Sias (2001) contend that research has overlooked the relationship between communication competence and ethical communication. Consistent with this view, Bass (1990) argues that, "Despite the importance that it [ethics] should have, this is a severely under researched area of empirical research on managerial and leadership behavior" (p. 905). Stemming from the dearth of research on this topic, the purpose of this study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level.

In the chapters that follow, the design and administration of the study is arranged in a logical and orderly manner. First, the literature review (Chapter II) involves concepts relevant to the study such as the ecological model of communication competence, the social cognitive perspective, communication competence, ethics, leadership, and organizations. Also contained in this section is a rationale of why this topic is important as well as a listing of research questions to be answered. Second, the methods chapter (Chapter III) describes the participants and the organizations that were surveyed, procedures used to gather data, the survey instruments used to gather the data and the statistical tests employed to analyze the data. Third, Chapter IV, the results chapter, sketches out the actual analysis of the data in accordance to the research questions asked, as well as explaining the results of the data analysis. Finally, the discussion chapter (Chapter V) discusses various topics in relation to the study including the overall feeling

of the results, the limitations of the study, and recommendations for the direction future research should take within this program of study.

CHAPTER II

LITERATURE REVIEW

This study examines the relationship between leadership communication competence and ethics. Specifically, the purpose of this study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. The following literature review defines and operationalizes several concepts of importance to this study. Specifically, this study makes use of the ecological model of communication competence, and is organized around the relevant concepts of the social cognitive perspective, communication competence, ethics, leadership, and organizations.

Ecological model of communication competence

The evolution of an individual in society lies at the heart of the ecological perspective. According to Bronfenbrenner (1979), the ecological perspective is the "convergence among the disciplines of the biological, psychological, and social sciences as they bear on the evolution of the individual in society" (13). Bronfenbrenner (1979) sees the growth and development of an individual as being dependent (in part) upon the environment within which the individual interacts, and as being dependent (in part) upon all other forces contained within the environment at all levels. These levels consist of the microsystem, the mesosystem, the exosystem and the macrosystem. Bronfenbrenner (1979) conceptualizes the levels of the ecological perspective as a set of Russian dolls: each level is nested inside the next. The microsystem is the inner-most system (i.e., the smallest doll), the mesosystem the next inner-most system, the exosystem the second to

the outer-most system and the macrosystem is the outer-most system (i.e., the largest doll containing all other nested dolls). Development (be it individual, group or organizational) is best seen as an active exchange between the environment and the developing entity (Jablin & Sias, 2001). Using this perspective in research allows researchers to utilize a vast array of variables (e.g., situation, setting, individual developmental level) that otherwise may not be included in single research studies (Grzywacz & Marks, 2001). A variable such as communication competence fits well with the ecological perspective. "Considering the influences of the environment or ecological systems in which the individual, group, or organization is embedded" (Jablin & Sias, 2001, p. 833), can be quite beneficial to the conceptualization and understanding of communication competence.

This study employs Jablin and Sias' (2001) Ecological Model of Communication Competence as a framework from which to examine ethical communication competence. The Ecological Model of Communication Competence structures and examines communication competence from an ecological perspective, at various levels of an organization: the microsystem (individual people), the mesosystem (groups or departments within the organization), the macrosystem (the organization as a whole), and the exosystem (the environmental factors related to the organization such as culture) (it should be noted that Jablin and Sias switch Bronfenbrenner's original order of ecological systems; macrosystem replaces exosystem as the third level ecological system and exosystem replaces macrosystem as the largest ecological system). These different levels of communication competence help to better define the concept of communication competence compared to traditional (i.e., individual-only level) notions of the concept.

"The development of communication competence (at the individual, group or organizational level of analysis) is influenced by, and influences, the environment (and the various ecological systems that make up the environment) in which the process occurs" (Jablin & Sias, 2001, p. 833). Besides ecological system or level, the model also conceptualizes communication competence along two other dimensions: competence assessment criteria and competence levels (see Figure A-1. All figures and tables are located in Appendix A). These dimensions reflect the notion that communication competence contains both a cognitive component and a behavioral component (Jablin & Sias, 2001). Although the model stems from an ecological perspective overall, competence assessment criteria and competence levels are discussed first.

Competence assessment criteria. To measure communication competence, Jablin and Sias (2001) indicate that competence can be conceptualized,

> in terms of cognition (knowledge of communication rules, symbols, cognitive complexity, etc.), behavior/skill repertoire, and performance (actual display of communicative behavior upon which attributions of an entity's communication knowledge and skills are primarily based). In essence, the former two competence elements (which when considered together compromise the communication resources available to a communicator; see Jablin et al., 1994) represent the criteria used to evaluate communicative performance (p. 835).

These assessment criteria, taken together compromise the vertical axis of the model in Figure A-1. The link between the communication competence resources people have and their performance is motivation.

Without motivation, a person may know (possess knowledge) how to communicate competently, but may never be motivated to perform competently. Thus, just because people know how to be competent does not indicate they will act competently (Jablin & Sias, 2001). By including motivation in the vertical axis, the authors are able to explain why this may sometimes happen. The conceptualization of communication competence knowledge level within the model is located on the horizontal axis.

Competence knowledge level. Jablin et al. (1994) originally conceptualized competence knowledge level within two categories: threshold competence and proficient competence. The ecological model of communication competence adds two more categories to the original two: precompetence and overcompetence. The precompetent stage occurs first, when a person is learning how to become a competent communicator. From there, a person might move into the threshold stage. It is in this stage a person contains enough general competence knowledge to perform adequately in most situations, however the person does not have enough competence knowledge to be considered a superior communicator (Jablin & Sias, 2001). To become a superior communicator, a person would need to become proficient in communication competence. This stage (proficient competence) indicates the person has moved beyond threshold competence and has enough knowledge to be perceived as a superior communicator in most situations. Finally, the last level of communication competence level Jablin and Sias (2001) discuss in the horizontal axis of the model is overcompetence. A person can be considered overcompetent when communicating using cognitive scripts, or basically communicating the same way in a situation over and over, without acknowledging

specific changes in each communication situation. At this point a person becomes unaware of certain communicative cues and communicates on 'auto-pilot' such that the person may be seen as not caring about the communication process as the overcompetent person will not change her communicative behavior to more appropriately fit the communication situation at hand (Jablin & Sias, 2001). The authors indicate a person's communication competence changes over time, in relation to the environment with which each interacts, according to the ecological perspective. Also included in this conceptualization of competence levels is the notion of level of analysis.

Levels of analysis. Jablin and Sias (2001) state communication competence can be analyzed from three different levels of analysis: individual, group and organization. For the purposes of this study, the individual and organizational levels of analysis are used. Analyzing the group level of analysis is beyond the scope of this project. Communication competence level, as judged by the preceding continuum of communication competence levels (from precompetence to overcompetence), can not only be examined from an individual, group and organizational level of analysis, but can also be influenced by four different ecological systems: the exosystem, the macrosystem, the mesosystem, and the microsystem, as represented by the depth axis in the model, as represented in Figure A-1.

Exosystem. The exosystem encompasses all other ecological systems, and thus makes the other ecological systems easier to understand. As Jablin and Sias (2001) state, "the exosystem represents the overarching belief systems; forms of knowledge; and social, technological, and economic systems and trends as well as political ideologies of the larger society in which individuals, groups and organizations exist" (837). The

exosystem affects individuals, groups and organizational communication competence in such ways which reflect society as a whole. Many variables could be studied in relation to communication competence and the exosystem. These variables are the big, broad stroke variables which affect society as a whole. For example, two recent trends in society which affect communication competence within the exosystem are globalization and rapid technology development (Jablin & Sias, 2001), as these trends cross all boundaries, including countries, cultures and civilizations. Competence variables which do not cross all boundaries, but extend to all facets of the organization are contained within the macrosystem.

Macrosystem. The macrosystem is the second largest ecological system affecting communication competence, affecting competence organization-wide. This system may not directly include the individual or work-group, but does affect these entities (Jablin & Sias, 2001). According to the authors, organizational forms and philosophies become important within this system, as these forms and philosophies affect organizations at all levels. Although the authors include three organizational forms and philosophies: the centralized/traditional organization, the functional/human relations organization and the divisional/matrix organization, only two are discussed and used for the present project: the centralized/traditional organization and the functional/human relations organization.

The centralized/traditional organizational form and philosophy stems from the view that control begins at the top of a formal hierarchical structure and flows downward, through various personnel levels (such as vice presidents, managers, supervisors, etc.). In addition, this form/philosophy is based upon the assumption that the organization adheres to formal policies and rules and this form/philosophy is best utilized in larger, more

stable organizations (Andrews & Herschel, 1996). Communicatively competent centralized/traditional organizations should consist of well defined structures and hierarchies, and a well utilized organizational grapevine, according to Jablin and Sias (2001).

The functional/human relations organizational form and philosophy operates similarly to the centralized/traditional organizational form, as control flows from the top of the organizational structure, yet within the functional/traditional view, the control is delegated to the various departments within the organization, such as sales, finance and production (Jablin & Sias, 2001). Unlike the centralized/traditional organizational form/philosophy, the functional/human relations organizational form/philosophy views organizational members' interactions as being more than simply work related. This form/philosophy views members' interactions within the organization as containing a social component in addition to a work-related component, and this view values informal human interaction and group/team work (Miles & Creed, 1995). Credence is placed upon employee satisfaction in this form/philosophy, compared to the centralized/traditional form, in which employee satisfaction is not conceptualized nor valued (Jablin & Sias, 2001). Communicatively competent functional/human relations formed organizations should include characteristics such as mechanisms designed for upward communication, the organization's mission and goals should be central to organization-wide communication, communication networks between work-groups be strong, and employees should be given and expected to be responsible for their actions within the organization (Jablin & Sias, 2001). The centralized/traditional and functional/human relations forms and philosophies are used in the present study, as many organizations are

not simply one type or the other, but usually contain elements of both forms (Shockley-Zalabak, 1995). As such, using both forms/philosophies within the macrosystem level accounts for some variation of forms which occurs within different organizations, and reveals a more complete picture of the organizations being investigated.

Mesosystem. Jablin and Sias (2001) describe the mesosystem as an interaction between various microsystems,

> Because of the multiple roles an individual occupies both in and out of the workplace (e.g., an employee may simultaneously be a subordinate, a supervisor, a functional group member, a work team member, a spouse, and a parent), that employee participates in multiple microsystems (e.g., the supervisor-subordinate microsystem, the work group microsystem, the work team microsystem, the marriage microsystem, and the family microsystem). The mesosystem represents the interrelations among these various microsystems. (p. 848)

Although the components (microsystem level relationships) are the same for building the mesosystem and the microsystem, the difference lies in the fact that the mesosystem represents the relationship between each of these microsystems, whereas the microsystem level represents the relationship within each microsystem (Jablin & Sias, 2001). Although interesting and valuable, the present study does not examine the mesosystem level, as it is beyond the scope of this project. However, the final ecological level within the ecological model of communication competence is examined in the present study.

Microsystem. The microsystem contains those interactions in which a person in the organization communicates directly with other individuals in the work environment (Jablin & Sias, 2001). These individual interactions, in turn affect others in the

organization which in turn affects the organization as a whole, and potentially the environment at large. There are countless elements contained within the microsystem available for study. Specifically for this project sex, race, age, education level, occupation classification, number of years in the organization and in the workforce (Jablin & Sias, 2001) are examined in relation to communication competence and ethics. To better understand the connection these elements of the microsystem have on the organization, the following paragraph outlines how occupation classification (full-time or part-time) specifically affects the system.

Recently, the relationship individuals have with their jobs has become very different than what was traditionally accepted. For much of the past century, people assumed and expected to stay at their jobs for as long as they were able to work (Eisenberg & Goodall, 2001). However, this is not the case in today's work environment. According to Conrad and Poole (2002),

> Everyone enters new organizations throughout their lives. Studies of voluntary job turnover and of the career aspirations of Generation X and Generation Y employees suggest that today's college students will change organizations more times during their careers than any other generation ever has. (p. 213)

From this, the classifications of full-time and part-time for workers have more meaning compared to the past, as the number of part-time workers has tripled since 1980 (Rodgers, 1995). Thus, according to Jablin and Sias, (2001), a new classification within the microsystem has arisen: status as a full-time or part-time employee.

Within the microsystem, the importance on whether an individual is full-time or part-time becomes apparent when realizing the implications this classification has on

communication competence at all levels within the system. For example, part-time workers may have to be more flexible overall, which could help them to become more communicatively competent as they would have to communicate and interact in many situations, with many people in many environments (Jablin & Sias, 2001). However, in the same breath, Jablin and Sias (2001) indicate the overall competence of the organization may become quite varied and even lowered as some part-time individuals may not become more communicatively competent, and thus, 'offset' the individuals who are competent or who have become more competent.

Overall, the present study specifically examines communication competence from the microsystem level and from the macrosystem level, as these two system levels are excellent for explaining the relationship between an individual and career behavior (e.g., organizational communication competence) (Cook, Heppner, & O'Brien, 2002). The level of analysis for the microsystem is the individual and the level of analysis for the macrosystem is the organization. Investigating the influence each system has on the other is beyond the scope of this project, thus each level of analysis will be examined in relation to its respective ecological system (i.e., individual level of analysis in relation to the microsystem and organizational level of analysis in relation to the macrosystem) with no influence assumed. Jablin and Sias (2001) argue that communication competence is not just an individualistic notion, but rather can be viewed also as a collective notion (as examining the communicative competence of an organization as a whole). The authors also contend each level of the system can influence the communication competencies of all the other levels. Thus, it is important to not only examine individual communication competence, but also organizational ethical communication competence as a whole. In

the present study, observer judgments of individual and organizational communication competence are examined, and as such, a better understanding of how people observe others' communication competence will be discussed in the following section.

Social cognitive perspective

In addition to using the ecological model of communication competence (stemming from an ecological perspective) upon which to base the present study, a social cognitive perspective is also utilized to better understand and lend support for using observers' judgments of others' (individual and organizational) communication competence as data.

Social cognition can be defined as how people think about people (Wegner & Vallacher, 1977). Social cognition is not a theory, but a perspective that studies how individuals perceive and interpret information from themselves and from others within a social or cultural context (Huitt, 2002). According to Roloff and Berger (1982), the social cognitive perspective consists of four general content areas that need to be articulated to gain a better understanding of the perspective.

Social cognition centers around thought processes. These thought processes cannot be observed, thus, traditionally self-report questions have been used in research to gain insight into a person's thoughts. However, more recently, behaviors stemming from thoughts and cognitions have been observed in research. From this method of research, investigators have discovered that people tend to break their cognitions into meaningful sets of behaviors to better understand and make sense of their cognitions.

Social cognition more specifically is thought-focused on human interaction. People want, and strive, to understand the environments to which they belong (Berger &

Calabrese, 1975). According to Wyer and Carlston (1994), when people receive information about a person, object, or event, they often select certain attributes of the stimulus and disregard others. Also, people tend to infer characteristics from the person, object or event that were not actually a part of the original received information, but rather based upon previously acquired knowledge. Because of this, the cognitive representations people create of the encountered stimulus often differ than the original information received. The authors argue that it is these created cognitive representations, and not the original information, that direct ensuing thoughts and feelings. Taylor and Fiske (1978) argue the most salient stimuli in people's environment have the greatest influence upon their judgments of others, no matter how trivial. In addition to environmental factors, the authors state that the general make-up of perceivers also influences their evaluations and thoughts of others. In other words, people are not only most influenced by things that are important to them in the environment, but they are also influenced by internal dimensions (such as individual differences and temporary need states).

Social cognition is thought-focused on human interaction that is organized in some fashion. To make sense of the complex information people receive every day, they create representations of reality by grouping variables used to create the reality, into a more understandable package (Roloff & Berger, 1982). The problem with this created reality is the notion of accuracy, or correctness:

> Human beings, acting as naïve psychologists, construct theories about social reality. These theories have all the features of the formal theories constructed by the scientist. They employ concepts and relationships derived from observation;

> they provide a structure though which social reality is observed; they enable the individual to make predictions. But, as we have pointed out, people are frequently unaware of the theories they employ. For this reason, they immediately assume that the structures they perceive and the predications they make are correct. Probably the primary difference between formal scientific theory and implicit theory lies in this dimension of assumed correctness. (Wegner & Vallacher, 1977, p. 21)

Stemming from previous research, Wegner and Vallacher (1977) identify five general methods people use to organize their created realities (constructed, informal theories) concerning human interaction. The first method is concerned with how people try to understand what causes behavior, such as trying to hypothesize what motivates people to do certain things (like trying to guess why someone would skydive). The second method is concerned with how people view personal attributes in relation to each other. An example of using this method to organize reality is when people assign personality characteristics to others simply because they know one specific characteristic of a person's personality (e.g., a calm person might also be viewed as rational, level-headed, logical and in control). The third method is concerned with how people evaluate others as good or bad, as when a person decides a man is a bad person because he did not leave a tip to a waiter at a restaurant after a meal. The fourth method people employ to create informal theories in relation to human interaction, is concerned with how people view expectations about relationships. For example, a woman might give a hug to a friend, because "that's what friend are supposed to do," while the woman's friend interprets the hug as "we must be friends." The fifth method is concerned with how

people view and evaluate themselves. A person might feel guilty for example, after eating a candy bar, because she views herself as being "healthy" and "in control." These five methods are contained within the "implicit theory" perspective of organizing social cognition research.

Roloff and Berger (1982) indicate there are two other perspectives of organizing social cognition research: attitudinal theories and script/schema models. Attitudinal theories center around four cognitive units: belief, attitude, subjective norm, and behavior intention. Basically, this perspective is interested in the link between attitudes and behaviors, because social cognition leading to action occurs in steps. The script/schema model perspective of social cognitive research examines the relationship between self, others and situations in relation to some form of schema or scripts. According to Roloff and Berger (1982) the problem with this perspective is the large number of terms and the inherently ambiguous nature of how they relate to each other. The authors describe causal schemata, conceptual schemata, self-schemata, person prototypes, and scripts all being a part of the previous social cognition research. Whatever they are called, scripts and schemas all help people to organize reality into more manageable and meaningful bits of information that people can better understand. Scripts and schemas are akin to guides or maps to human behavior through which people can compare actual human behavior that is observed and thus make judgments and evaluations of those behaviors.

Social cognition, as it is based upon the created thoughts and cognitions of individual people, varies in the degree to which it can, with certainty, claim to be true and real representations of the environment from which people come (Roloff & Berger, 1982). In other words, the definition of social cognition makes no statement concerning

the accuracy of social cognition. Despite this negative, the authors state that the truthfulness of a person's social cognition may depend upon the situation the person is in. "Consequently, social cognition about self, others, or behaviors may indeed be inaccurate in some situations, but when conditions change cognitions may become veridical" (Roloff & Berger, 1982, p. 20).

Overall, social cognition is the collection of thoughts people have about human interaction. These thoughts may be focused on self, others or behaviors, and organized in some method of categorization, such as grouping by attitudes, implicit theories or by scripts and schemas.

Communication competence

Communication competence, as reported from an observer's perspective, needs to be researched from a behavioral standpoint (Parks, 1994). As Pavitt and Haight (1986) indicate, "the process of competence evaluation cannot be understood independently of a model representing the manner in which these beliefs are 'structured'" (p. 221). A behavioral approach is utilized when gathering observers' insights into a leader's communication competence, as behavior is the only quantifiable verification of communication competence that can be used to evaluate a leader's communication competence with any sort of accuracy (Parks, 1994).

Communication competence can be defined in various ways; almost as many definitions of competence exist as there are authors (Cooley & Roach, 1984). Two areas must be examined to better understand communication competence. First, because numerous definitions of competence exist, a few key issues (e.g., perspective, view, and generalizability) central to communication competence need to be illustrated. Parks

(1994) argues that instead of these key issues being 'either/or', (i.e., authors included only one of the two possible views of each key issue in their conceptualizing communication competence, but not both), he argues that each key issue needs to be defined using both views of each issue. Second, from these issues, a discussion of common components contained within operational definitions of communication competence will be examined.

As stated above, there are a large number of communication competence definitions that have been posited. Part of the reason this has happened is due to the fact that there are various issues that can be addressed when conceptualizing communication competence. The first issue that has tended to divide researchers on conceptualizing competence is the issue of perspective.

Perspective. Communication competence has traditionally been researched from an 'actor' point of view, meaning that people would judge their own communication competence (Parks, 1994). However, numerous studies show that people's judgments of their own competence usually do not match with observers' judgments of that same person (e.g., Spitzberg, 1982, 1986; Spitzberg & Hecht, 1984). Therefore, researchers conduct studies of communication competence from an observer point of view in addition to an actor point of view. The nature of perspective is a key issue in the debate of communication competence as the two perspectives have decidedly different results when researched, and thus, other and different issues become salient when examining competence from an actor perspective or an observer perspective. One issue that becomes salient when discussing perspective in communication competence is the issue of how competence is viewed.

View. Communication competence can be seen and researched as both a cognition and a behavior (Parks, 1994). Again, which view is adopted depends upon the perspective (actor or observer) from which competence is researched. If competence is examined from an actor point of view, then most likely, competence will be seen as a cognition, as an actor can self-report her thoughts. If competence is to be examined from an observer perspective, then competence should be researched from a behavioral standpoint. Observers can only make informed judgments of a person's behaviors (which can be seen), while they cannot make informed judgments of a person's cognition or thought processes (which can not be seen). If competence is researched according to cognitions, it is assumed that people's knowledge of being a competent communicator is the main 'ingredient' of competence. Other researchers contend that although knowledge is an important component to competence, if a person does not act on that knowledge, that person cannot be considered communicatively competent (Parks, 1994). Therefore, to those researchers, behavior is the main 'ingredient' in competence. The question of viewing competence as a cognition or a behavior is a key concept to consider when conceptualizing communication competence as how competence is viewed will affect how generalizable a researcher sees communication competence.

Generalizablity. Park's (1994) final key issue when conceptualizing communication competence is the notion that competence is both specific and general. Historically, competence has been researched from a trait perspective, in which competence was seen as very generalizable (Parks, 1994). Incorporating the previous key issue, if a researcher uses the cognition approach in conceptualizing competence, then likely the researcher would see competence as quite generalizable: a person's thoughts

could be long term, 'born-with' ideas. In perceiving competence in this manner (trait), a researcher might argue that if a person were communicatively competent in one type of communication, that person would be competent in most, if not every, situation she finds herself in (Parks, 1994). Counter to that notion, if a researcher saw competence as a behavior, then that researcher would likely view competence as situational, and therefore not generalizable, as a person's behaviors in one situation do not necessarily transfer to other situations very well (Parks, 1994). Thus, as the present research views competence from an observer point of view, utilizing behaviors to measure competence, the present study views communication competence as not generalizable, but rather specific to the environment and situation an individual (group, organization) is interacting with.

Each of these key issues is important to the conceptualization of communication competence. How these issues are examined affects not only the choice of the other key issues, but also the operationalization of communication competence definitions.

Definitions. In general terms, communication competence can be defined as the ability to effectively adapt in a given situation (Spitzberg & Cupach, 1984). Jablin and Sias (2001) define communication competence as, "the set of abilities, or resources, which a communicator has available for use in the communication process" (p. 820). The resources include, "strategic communication knowledge (e.g., knowledge of appropriate communication rules and norms), and communication capacities (e.g., traits and abilities such as cognitive differentiation, perspective taking and general encoding and decoding skills)" (Jablin & Sias, 2001, p. 820). The authors define communication performance as the display of communication behaviors upon which attributions of competence are based. Jablin and Sias note the importance of the relationship between performance and

competence, but note the importance in examining these two concepts separately in research. Also, this definition of communication competence disregards the notion of effectiveness and goal achievement. The authors support the position argued by McCroskey (1982) that "one may be effective without being competent and one may be competent without being effective" (p. 3). Finally, Jablin and Sias argue that communication competence should be analyzed at multiple levels of analysis, rather than simply at the individual level, which most competence research has focused on to this point. Unfortunately, although these definitions give insight into how communication competence can be viewed, none offers the view that competence is related to behaviors people engage in to be effective while communicating. As the present study examines observers' perceptions of others' competence behaviors, an operational definition of communication competence including the notion of behavior is needed.

Three representative definitions of communication competence, which view competence as behavior, are discussed for the present study. Chronologically, these definitions develop from simply relating communication competence to ability to viewing competence as a concept which incorporates the key issues (observer perspective, behavioral view and non-generalizability/specificity) important to the present study.

First, communication competence has been defined as,

> a synonym for ability. It means a satisfactory degree of ability for performing certain implied kinds of tasks...our main strategy of definition will be analytical, to name its parts, as manifested in observable behavior. These we take to be: (1) health, (2) intelligence, (3) empathy, (4) autonomy, (5) judgment, and (6) creativity. (Foote & Cottrell, 1955, p. 36 & 41)

This definition relates competence to ability, and although it mentions certain parts that can be observed when measuring competence, the definition does not indicate whether competence is generalizable or specific.

Larson, Backlund, Redmond, and Barbour (1978) offer a second definition of communication competence, as "the ability of an individual to demonstrate knowledge of the appropriate communicative behavior in a given situation" (p. 21). This definition does include the observer perspective, and the notion of specificity, however, although the definition does use the term "communicative behavior," it only indicates an individual needs to possess the "ability to demonstrate appropriate communicative behavior." The definition does not specifically state an individual must "demonstrate appropriate communicative behavior." Granted, this is a small distinction, but there is a difference between simply having the ability to demonstrate appropriate communicative behavior (which does not indicate a person will act in a communicatively competent manner, although he or she would have the ability to) and actually demonstrating appropriate communicative behavior (in demonstrating appropriate behavior, an observer could believe the individual has ability, as without the ability, the individual would not be able to act in an appropriate communicative manner). Therefore, a third definition of communication competence is examined to more accurately tie in perspective, view and specificity.

The third and final definition of communication competence to be inspected is put forward by Haas and Arnold (1995) who state communication competence, "concerns receiver judgments of the appropriateness and effectiveness of communication behaviors in a given context" (124). This definition incorporates conceptualizations of perspective,

view and generalizability in conjunction with observer perceptions of communication competence, as utilized in the present study. First, "concerns receiver judgments" specifically indicates this definition is anchored in the observer perspective, and again, this perspective is needed to use observer judgments of competence in the present study. Second, this definition states competence is, "the appropriateness and effectiveness of communication behaviors" that reveals the behavioral view from which the definition stems. Finally, the generalizability of communication competence is not assumed to be true from the definition as "in a given context" indicates that the appropriateness and effectiveness of a communicator depends upon the situation and environment he or she is in. Therefore, this last definition is the guiding definition of communication competence for the present study.

Previous research of observer judgments of a leader's communication competence incorporates various communication behaviors or acts such as attention, avoidance, clarity, disclosure, emotional support, general appropriateness, perceptiveness, reflecting, resourcefulness, self-efficacy, social composure, social ease, social experience, and wit, to just name a few (Spitzberg & Cupach, 1989). However, although over 100 communication acts have been identified as connected to communication competence, one very important and timely component of communication has not been examined in relation to competence: ethics.

Ethics

The term ethics, like communication competence, is difficult to define. Therefore, it is not surprising that many authors do not give clear and specific definitions of ethics (Chau & Siu, 2000). In fact, some authors do not give a definition of ethics at all when

utilizing the term in research (e.g., Adams, Tashchian, & Shore, 2001; Brenner, 1992; D'Aquila, 2001; Stevens, 1999). Regardless, in research that does define the notion of ethics, the definitions have been created using one of two very different perspectives. Ethics have been defined either from a conceptual perspective, or from a practical perspective (Gesler, 2002).

Having a conceptual perspective within a definition of ethics indicates the definition be concerned with conceptualizing ethics by using broad terms that are open to interpretation, instead of quantifying the concept of ethics through utilizing behaviors in the definition to make the definition more objective and measurable. Although many articles in this group did not define ethics at all, some did define the variable. However the definitions although clear, were not specific nor explicit. Thus, ethics, according to this group of studies, is the difference between right and wrong (Fritzsche, 1991; James, 2000; Reamer, 1998; Sinclair, 1993). This definition is clear, however the definition is not explicit. The problem is in what constitutes right and wrong, and where the difference between the two lies. To some, the delineation between right and wrong may be seen as black and white. For example, to these people (who believe in a black and white outlook regarding the difference between right and wrong), any type of stealing might be considered wrong and therefore unethical. On the other hand, some people might see the difference between right and wrong as one big gray area. To these people, stealing in general might be considered wrong and unethical, but they might agree that stealing, in some instances might be the right, or ethical thing to do (such as stealing bread for a person who is starving to death).

Different people could see this definition of ethics in extremely different ways. For example, Fritzsche (1991) describes how the difference between right and wrong could stem from deontological beliefs (such as following the Ten Commandments) or from teleological beliefs (such as acting upon the perceived outcome of a situation). Although this a more specific description, it moves away from the definition of ethics, and ends up more as a description of how right and wrong happen.

Other conceptual/theoretical articles define ethics differently, however neither more explicitly nor clearly. For example, Chau & Siu define ethics as "a decision that is both legal and morally acceptable to the larger community, while an unethical decision is a decision that is illegal or morally unacceptable to the larger community" (2000, p. 367). While this definition seemingly is more specific, unfortunately it is not clear-cut, as the definition is dependent on the community to which an organization belongs. Stemming from this fact, a definition of ethical is not stable and could change from organization to organization, leading to different definitions for the same variable. Also, the use of the terms 'morally acceptable' and 'morally unacceptable' are very open to interpretation themselves, which could pose problems in building research from this definition. "Ethics is the systematic inquiry about moral judgments, rules of conduct, and ways of life" (Petrick & Manning, 1993, p.15). Again, this definition, although specific, is not clear, as moral judgments, rules of conduct, and ways of life are all open to various interpretations. Finally, Kaptein & Van Dalen (2000) see ethics as intentions that motivate conduct. This definition is specific, but also open to interpretation. A person's intentions can not be seen or measured, and as such, different people might define the word "intentions" in different ways.

The commonality among these conceptual articles that did define ethics is the definitions all had a philosophical feeling to them. The definitions tend to be broad, very open to interpretation and are not concrete, but rather conceptual in nature. As stated above, these conceptual articles taken as a whole, define ethics as the difference between right and wrong within certain communities and situations.

For this study, the notion of ethics needs to be defined in more practical terms to be useful, as the study utilizes observer's perspectives of leadership and organizational ethical communication competence. As such, the operational definition of ethics should include observable and quantifiable actions or behaviors to help define the concept; actions or behaviors that can be seen and measured.

As a whole, the practical group of studies define ethics more often than did the conceptual group and they define ethics more specifically. As in the conceptual group, the notion of ethics is defined in this group as behavior that is good and right, whereas unethical behavior would be behavior that is bad and wrong (Sims, 1992). This is similar to the conceptual group of articles, yet this definition also includes behavior, which can be observed and measured. Minkes, Small, & Chatterjee (1999) agree with Sims' definition, however describe behaviors that a person 'ought' to do as ethical and behaviors that a person 'ought not' do as unethical. Although quite similar to the conceptual definitions of ethics, there is an important addition in these two definitions that was not included in the conceptual definitions: both practical group definitions include behavior into the definitions where the conceptual definitions deal with right and wrong in concept only. However, like the conceptual definitions, these two practical definitions are still very open to interpretation. As in the previous section, the problem

arises as to how do we define good and bad, right and wrong, ought and ought not? Other studies in the practical group have varying definitions of ethics, although each define ethics in terms of behaviors, as did the other two definitions above.

Ethics can be seen as the manners, customs, habits, character traits and moral dispositions of people (Chismar, 2001). This definition takes an innovative and interesting look into ethics by equating ethics with the small, everyday interactions that people engage in throughout the day. This definition too is open to interpretation, as, for example, manners can be seen as very cut and dried to being very flexible, and how those manners are thought of will determine how a person interprets this definition of ethics. Gottlieb & Sanzgiri (1996) define ethics akin to the conceptual group, as they relate ethics to that which is right and wrong in a society. Consistent with the other practical group definitions, they also append this definition to include an ethical behavior component, which refers to a morally correct position based upon a set of beliefs. Unfortunately, as the authors themselves highlight, this definition was not clearly stated, as there is no general agreement between what is right, fair and proper.

In addition to defining ethics, these practical definitions also give prescriptive advice to organizations on how to be ethical. The advice gained from the practical articles is quite varied, however a few commonalities surface within the research. The first commonality found in the practical literature fell under the general heading of "leadership." This group of prescriptions dealt with the importance of leadership on the organizational ethical culture (Brenner, 1992; Gottlieb & Sanzgiri, 1996; Minkes, Small & Chatterjee, 1999; Nixon & West, 1993; Sims, 1992). Some articles either specifically prescribe behaviors leaders should do, such as lead by example (Nixon, 1993) or the

articles give indirect leadership advice, talking about issues that might only be applicable to a leader, such as praising and rewarding ethical behavior (Sims, 1992).

The second commonality found in the literature can be classified under the heading of "environment." These prescriptions hover around ideas of establishing certain processes to create and maintain an ethical culture. One of the most recommended processes is to create a formal code of ethics (Brenner, 1992; Gottlieb & Sanzgiri, 1996; Sims, 1992). Although establishing a formal code of ethics is recommended, these researchers stress that an ethical code alone does not guarantee a culture will become more ethical. They comment that companies need to not only make the ethical codes meet the needs of the company, but also companies need to make sure to reinforce and act on these ethical codes.

Another highly recommended process in the "environment" category is to create an open organizational culture in which members are free to discuss ethical issues and voice dissent (Gottlieb & Sanzgiri, 1996; Minkes et al., 1999; Sims, 1992). The authors prescribing this advice mention that creating a forum where people are allowed to talk about ethical issues keeps ethics in the minds of the organizational members, allows the members to see the reinforcement of formal ethical codes, and gives the members the ability to voice their dissent towards unethical practices occurring within the organization.

A third and final commonality can be described as advice to the "individual." The advice contained in this grouping detail behaviors in which individual organizational members should engage. Examples are exercising patience, setting standards, being

reliable, being courteous, being fair, and having responsibility for your actions (Chismar, 2001; Minkes et al., 1999; Nixon & West, 1993).

Taken as a whole, the definitions offered from the practical group of articles are just that: practical. Unlike the previous group, these definitions all have a 'concrete' quality to them that helps to define culture and ethics in a more objective and quantifiable (measurable) manner.

After considering the practical articles, an overarching definition of ethics for the practical group of articles would be behaviors people engage in that are representative of the right thing to do and the wrong thing to do in a given setting and situation. This definition not only includes right and wrong, but also includes behavior, which, as stated previously, is a critical component for this particular study, as observers' perceptions is used for data. Thus, this definition of ethics is used for this study and is applied specifically to the subjects of interest within this study; leaders and organizations.

Leadership

The relationship between communication and leadership is very strong. In fact, great leaders have often been linked to communication, such as in the case of the famous UCLA basketball coach John Wooden being called "the great communicator" (Loehr, 1983). Most every definition of leadership either explicitly or implicitly indicates communication as main component of leadership. Unfortunately, as Bennis (1959), Salancik et al. (1975), and Yukl (1998) observe, there is no one single definition of leadership, but rather many varied definitions. In the examination of various leadership definitions, the close tie between leadership and communication will become apparent.

Almost 50 years ago Hemphill and Coons (1957) defined leadership as the behavior of an individual directing a group towards a shared goal. First, directing indicates a form of communication being transferred from the leader to other people. To be able to direct, the leader must communicate with people (such as the director of a movie tells the actors what to do). Second, the notion of a shared goal implies communication has occurred between the leader and others of the organization.

A second definition of leadership states leadership is a transformational process by which higher order needs of individuals are aroused and satisfied (Bass, 1985; Burns, 1978). Again, communication is implied in this definition. To 'arouse and satisfy' higher order needs of others, communication at some level has to happen, as communication is the only channel through which a leader is able to satisfy higher order needs of people.

A third definition of leadership, as offered by Richards and Engle (1986) says leadership is the articulation of visions, the embodiment of values and the construction of a culture such that things can get accomplished. Richards and Engle's definition of leadership more specifically indicates a communication and leadership connection when they state leadership is, "articulation of visions," as the act of articulating something indicates people express themselves readily, clearly and effectively (Merriam-Webster, 2003).

Along with these definitions of leadership, Yukl (1998) sums up communication-based leadership skills and abilities that are relevant to leadership in relation to being an effective (communicatively competent) leader. First, he indicates leaders need to acknowledge, recognize, reward and socialize with people. Second, Yukl (1998) states leaders need to balance directive language based upon the certain group with whom they

are communicating. Third, leaders need to gain and keep power, know how to use that power, instill trust in the group they are leading, influence the structure of message forms, instill confidence and competence in people. Fourth, Yukl (1998) posits leaders need to actively listen, empathize, socialize, respect and acknowledge people. Lastly, leaders need to motivate, persuade, influence, inform, recognize, manage conflict, mentor and understand people.

As seen above, many behaviors are given for leaders to be communicatively competent, however, none of these behaviors includes or indicate ethics, ethical communication, or ethical behavior. This does not mean, however, that leaders should not be concerned with ethics, as Bogue (1994) indicates, "The most important design work therefore rests in those governing ideals that guide the minds and hearts of leaders, that establish the form of their characters" (p.11). In fact, Bogue (1994) argues leaders should first have honor; honor to envision right action, and honor to enact right action. If leaders are to have honor to envision and enact right action, it would follow the organizations these leaders are a part of should also have honor and be effective.

Rationale

This study examines the relationship between leadership communication competence and ethics. The purpose of this study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. The rationale for this project is threefold.

First, little research has been directed toward the relationship between ethics and communication competence. Research has investigated communication competence in

relation to goal attainment, but has not often examined the question of "do the ends justify the means" (Jablin & Sias, 2001). Plato noted that a communicator should be truthful and her goals should be directed toward the good of society. Unfortunately, the power of communication is often abused (Lucas, 2001). A person may be a very competent communicator, achieve her goals, but without ethics, she may be dishonest and lying each time she communicates, which at some level, hurts others. This then would go against the traditional assumption that competent communicators should strive to be truthful and honest.

Second, although a considerable body of research exists that examines communication competence at the individual level of analysis, few studies have been directed toward exploring communication competence from an organizational level of analysis. Using multiple levels of analysis to study communication competence may spotlight different features of communication competence, and may help to gain new insights into the concept. To create more successful and effective organizations, the notion of organizational communication competence needs to be refined.

Third, the ecological model of communication competence, developed by Jablin and Sias (2001), has not been explored empirically. This model, being conceptualized relatively recently has been included in very little research to date. The model being very original in scope and perspective provides a fertile ground upon which to study and better understand the concept of communication competence. "...The developmental-ecological approach serves as framework that facilitates the process of "owning up" to underlying, value-laden, ideological assumptions about competence" (Jablin & Sias, 2001, p. 855). The process of uncovering underlying and value-laden assumptions about competence

needs to be empirically tested such that the understanding of those assumptions in relation to communication competence becomes more clear.

Based on the previous research regarding the ecological model of communication competence, communication competence, ethics, and leadership, the following research questions are offered:

Research Questions

RQ1: What is the relationship among perceptions of ethics and perceptions of communication competence at an: (a) individual (micro) level; and (b) organizational (macro) level?

RQ2: What is the relationship among demographic information and perceptions of ethics at an: (a) individual (micro) level; and (b) organizational (macro) level?

RQ3: What is the relationship among demographic information and perceptions of communication competence at an: (a) individual (micro) level; and (b) organizational (macro) level?

RQ4: How do perceivers of leaders describe: (a) leaders; (b) communicatively competent leaders; and (c) ethical leaders?

CHAPTER III

METHODS

This study examines the relationship between leadership communication competence and ethics. More specifically, the purpose of this study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. To more fully explore the topic, methodological triangulation was employed for this project. This study employed a survey instrument which included quantitative (i.e., forced choice) as well as qualitative (i.e., open-ended) questions. Utilizing more than one method of study gives a researcher greater insight, perspective and understanding into the phenomenon being studied (Frey, Botan, & Kreps, 2000; Stacks & Hocking, 1999).

"More research has been conducted on leader behavior than on any other aspect of leadership." (Yukl, 1998, p. 495). Of the many methods to research this area of leadership, a number of studies (e.g., Emrich, 1999; Luthar, 1996; McGlashan, Wright & McCormick, 1995; Yukl, 1998) have been receiver or follower based. Receiver-based leadership research consists of information gathered through the questioning of organizational members working for the leader or leaders being researched. Just as 'leadership is in the eye of the beholder,' the impression made by a leader is just as important as the accomplishments the leader had made through hard work, skill and attention to detail. Thus, a negative impression of a leader's leadership ability (created through making a poor decision, for example) may be compromised, as this may lead

organizational members to think that this leader is incompetent, ignorant, or unfit as a leader (Giacalone, 1988). So strong is this desire to create a positive impression to organizational members that leaders will often change their behavior to be seen in a more favorable light, illustrating that organizational members' perceptions and views of leaders are extremely important, and they can reveal information about leaders that can not be found any place else. Thus, observer-based judgments of leaders is an important variable of interest to be studied. For the present study, only the observer point of view is used, as utilizing an actor point of view is beyond the scope of this project. Also, for the present study, communication competence is viewed as a behavior, as not only are observers' perspectives used as data, but this view is also more easily measured than when viewing competence as a cognition. Lastly, as the present research views competence from an observer point of view, utilizing behaviors to measure competence, this study views communication competence as not generalizable, but rather specific to the environment and situation with which an individual (group, organization) is interacting.

Participants

The participants for this study were selected through a non-random snowball sampling technique, starting with a population of participants from a northern California pension company, a northern California library system, an engineering/architectural firm located in Nevada and California, and from a Boy Scout organization located in Tennessee. From these organizations, members were encouraged to pass along the survey website to people they knew who worked in any type of organization, and those people were further encouraged to pass the survey website along to their acquaintances working in other organizations and so forth.

The sample of participants that responded to the survey totaled 240. Forty-two and a half percent were male (n=102), while 55.4% were female (n=133). Just over 2% (n=5) was attributed to missing values. Just about 75% of the sample indicated they were married (n=184), while over 20% indicated they were not (n=49). The age of the participants ranged from 19 to 82 years old, with a mean of just over 43 years of age. The majority of the sample's ethnic make-up was "white" (n=210) accounting for over 87% of the total sample. The education level of the sample indicated less than one percent of the sample had "less than high school" education (n=2), 20% had "high school" education (n=48), over 11% had an associate's degree (n=27), almost 40% held a bachelor's degree (n=94), over 24% held a master's degree (n=59), and just over two percent held a doctoral degree (n=5). The mean number of years the participants had been in the workforce was 22.5 years, and ranged from one year to 50 years, while nearly 48% worked for "for-profit" organizations (n=115), and just under 46% worked for "non-profit" organizations (n=111). Only 10% of the sample classified themselves as "part-time" workers (n=24), while nearly 84% of the participants indicated they were "full-time" workers (n=201). Over 41% of the sample were classified as "managers" (n=100) and just over 51% were classified as "non-managers" (n=123). (see Tables A-1 & A-2).

Procedures

Participants took the survey online at their leisure, via computer, by going to a specific web page containing the survey. Participants were asked to complete a Likert-type survey, a free response question, and demographic information. Specifically, the survey consisted of four sections (a micro-level communication competence scale, a macro-level communication competence scale, a micro-level ethics scale, and a macro-

level ethics scale). The instrument totaled 44 Likert-type questions, in which the participants were asked to answer each question on a scale of 1 to 7, with 1 representing completely disagree to 7 representing completely agree. The number of questions was reduced after analyzing the pretest results (from 80 original questions to 44 questions [see Appendix B. All survey instrument related information is located in Appendix B]). The free response question asked participants to write, in list form, how they think about leaders, leadership communication, and leadership ethics. Finally, the demographic section asked participants to answer various information about themselves. The entire survey took approximately 20 minutes to complete.

Survey instrument

Micro-level communication competence (individual) section. This section asked participants to think of a specific leader outside of their current organization and answer 33 Likert-type questions according to the leader they are thinking about in relation to micro-level (individual) communication competence. This portion of the survey was developed by Wiemann (1977). Originally, 57 questions were formulated to assess five dimensions of individual communication competence. The dimensions were: general competence, empathy, affiliation/support, behavioral flexibility and social relaxation. The 36 questions that discriminated the best between the dimensions were used in the final instrument (Rubin, Sypher, & Palmgreen, 1994). A factor analysis was run and the five original main dimensions were found to contain two main factors: a general factor and a relaxation factor.

Reliability. Wiemann (1977) found the 36-item revised instrument to be quite reliable with an Alpha reliability coefficient of .96. Other researchers (e.g., Jones & Brunner,

1984; McLaughlin & Cody, 1982; Street, Mulac, & Wiemann 1988) have also found this instrument to be reliable, reporting Alpha reliability coefficients ranging between .84 to .95 (Rubin, Sypher, & Palmgreen, 1994).

Validity. Two studies have found evidence of construct validity for this instrument. In one study (McLaughlin & Cody, 1982), participants who were involved in a conversation where multiple lapses of time occurred between the communication found their ratings of the other's communication competence to be lower. In a second study (Street et al., 1988), behaviors such as speech rate, vocal back channeling, duration of speech, and rate of interruption were related to their communication competence scores (Rubin et al., 1994).

Macro-level communication competence (organizational) section. This section of the survey asked participants to think of a specific organization, other than the one they are currently in, and then to answer 14 Likert-type questions according to the organization they are thinking about in relation to macro-level (organizational) communication competence. This portion of the survey was developed directly from Jablin and Sias' (2001) conceptions of what organizational communication competence should consist of in centralized/traditional organizations and in functional/human relations organizations (i.e., questions on the survey were worded close to, if not exactly as Jablin and Sias (2001) worded their conceptions of organizational competence within centralized/traditional and functional/human relations organizations). As Jablin and Sias (2001) state within the centralized/traditional organization,

> organization-level competence will rest in well-defined structures such as the chain-of-command/hierarchy and in standard operating procedures for

> communication. As a consequence, communication competence will be centered on capabilities associated with use of ...knowledge of correct protocol for organization-wide communication. Thus, internal (mostly downward, one-way) communication mechanisms such as...employee manuals, and internal memoranda represent key communication resources associated with organization-level communication competence in centralized/traditional organizations. In addition...organizational grapevines (although not "official" communication resources) may constitute an important part of a centralized/traditional organization's communication capabilities. (p. 844)

The items contained on the instrument reflected the previously cited statements, as well as other statements made by the authors in accordance to functional/human relations organizations. As Jablin and Sias (2001) posit,

> Capabilities associated with organization-level competence will include those characteristics of centralized/functional organizations, but will also involve numerous upward communication mechanisms (e.g., electronic mail, suggestion boxes, "open-door" policies, employee attitude surveys). Organization-wide communication (e.g.,...company meetings) will emphasize identification with the organization's mission and goals and seek to encourage employees to internalize decision premises and attitudes conducive to the organization's objectives...Formal "linking pin" roles and units (e.g., Likert, 1967) will often be used to build efficient communication networks among groups and departments and training programs might be offered to help organizational members develop their communication skills, thus enhancing the organization's overall

> communication competence....if they [organizations] develop communication abilities of their members, their members will be motivated to reciprocate by using their new competencies in the best interest of the organization. (845-846)

Conceptualizations from both centralized/traditional and functional/human relations organizations were used in the creation of the instrument; Jablin and Sias (2001) indicate overall organizational-level communication competence will contain dimensions of both the centralized/traditional as well as the functional/human relations organizations.

Reliability. According to a pretest run on these questions, the Alpha reliability coefficient was .78, which was above the recommended Alpha reliability coefficient cutoff of .7, as recommended by Frey, Botan and Kreps (2000).

Validity. As the questions for this part of the survey were created directly from Jablin and Sias' (2001) conceptions of what organizational communication competence should consist of, this instrument seems to be face valid. Testing for other forms of validity on the macro-level communication competence section of the questionnaire has not been done, and is beyond the scope of this study.

Micro-level ethics (individual) section. This instrument asks participants to think of a specific leader outside of their current organization and answer 15 Likert-type questions according to the leader they are thinking about in relation to micro-level (individual) ethics. This instrument was created by modifying Key's (1999) Ethical Culture questionnaire to reflect micro-level (individual) centered questions. For example, question 3 on the original instrument, "Ethical behavior is the norm for the organization" was changed to reflect an individual leader orientation, "Ethical behavior is the norm for

the leader." From the original instrument, the terms "organization," "top leaders," and "management," were changed to "leader."

Reliability. According to a pretest run on the instrument, the Alpha reliability coefficient was .93, which was above the recommended Alpha reliability coefficient cutoff of .7, as recommended by Frey, Botan and Kreps (2000).

Validity. As the questions for this instrument were created by modifying Key's (1999) Ethical Culture questionnaire items from a collective notion (macro-level) (i.e., by asking about ethics in relation to "organization," "top leaders," and "management,") to read from an individual leader perspective (i.e., by asking about ethics in relation to "the leader") , this instrument seems to be face valid. Testing for other forms of validity on the micro-level ethics questionnaire has not been done, and is beyond the scope of this study.

Macro-level ethics (organizational) section. This portion of the survey asks participants to think of a specific organization, other than the one they are currently in, and then to answer 19 Likert-type questions according to the organization they are thinking about in relation to macro-level (organizational) ethics. The macro-level ethics instrument was developed by Key (1999) as a modified version of the Ethical Culture Questionnaire as created by Trevino, Butterfield, and McCabe (1995). Trevino et al. (1995) developed this instrument to assess the ethical aspects of organizations in a more simple manner than has been attempted before (Key, 1990). Key's modification involved rewording or deleting items pertaining to "ethics codes." Many organizations do not have formal ethics codes, thus, those certain items were found to be problematic (Key, 1999). Overall, this instrument was found to contain only one factor after the items were changed (the author does not label the factor).

Reliability. This instrument has been found to be quite reliable. Key (1999) reported Alpha reliability coefficients of .93 and .92 for the original instrument developed by Trevino et al. (1995) and her modified version of the instrument, respectively. Both Alpha coefficients were above the recommended reliability coefficient of .7 (Frey, Botan, & Kreps, 2000).

Validity. Since Key (1999) developed this instrument from Trevino et al.'s (1995) original version, the instrument does appear to be face valid. To date, there appears to be no other validity information available, as other tests of validity for this instrument have not made it into press. Testing for other forms of validity on the macro-level communication competence questionnaire has not been done, and is beyond the scope of this study.

Free response section. As outlined by Pavitt and Haight (1985), each participant will be asked to think of a leader outside of their present company and write, in list form, their thoughts on one of three possible questions. Each participant will be given, and will answer only one of the three options. One free response will ask participants to describe a leader, one will ask participants to describe a communicatively competent leader, and the final free response question will ask participants to describe an ethical leader.

Demographic information section. Information such as sex, age, years at company, years in the workforce and present position in the company will be collected to better understand and analyze the data in relation to these demographic questions.

Survey instrument pre-test

General information. A pretest of the survey instrument was conducted utilizing 208 participants, in order to assess, among other things, reliability information. First, tests of normality were run on all data. Normality (or lack thereof) indicated which statistical tests to use (parametric or non-parametric) in analyzing the data. A principal component analysis was run on all the data to verify what was intended on being measured was actually measured (as all the variability should be mostly in one main component). After the principal component analysis, a factor analysis was run on the entire dataset to again verify the established categories or factors into which each survey question fell. In addition, a principal component analysis and factor analyses were used to determine if the survey instrument could be shortened and streamlined. All statistical tests were run using the Number Cruncher Statistical Systems (NCSS) statistical software package and the Statistical Analysis Software (SAS) package. The omnibus test of normality indicated that only one of 80 questions was normally distributed, thus, where applicable, robust statistical tests were run. A missing value analysis indicated that the majority of questions had at least one missing value out of 208 responses. The missing values were not imputed, thus all statistical tests were run only on existing values.

Reliability. Overall, the Alpha reliability for all sections of the survey combined (80 questions) was .97. Individually, the Alpha reliability coefficients for each section were .97, .78, .93, and .92 for the micro-level communication competence section (32 questions), macro-level communication competence section (14 questions), micro-level ethics section (15 questions) and macro-level ethics section respectively (19 questions). All Alpha reliability coefficients were above the cutoff of .7, as recommended by Frey,

Botan and Kreps (2000). For all tests of Alpha reliability, the cutoff of .7, as recommended by Frey, Botan and Kreps (2000) was used.

Principal components analysis. Next, an unrotated principal components analysis was run on the data not only to get an initial "feel" for the data, but to also to discover the true dimensionality of the dataset. The PCA (using the Variance/Covariance matrix, as each of the four sections were scored using the same 1 to 7 Likert scale) indicated the dimensionality of the space for this dataset was about eight, through the examination of a scatter plot of Eigenvalues (see Figure A-2); after eight, the Eigenvalues level off. About 61% of the variation of the dataset fell within these eight principal components. This indicates that multicollinearity existed within the data, and thus, a smaller set of variables should be able to replace the original set of 80 variables without losing much information gained by the original variables. In order to decide how the variables should be replaced, factor analyses were run on each of the four sections of the survey.

Factor analyses. Initial factor analyses (principal axis method) were run using Varimax rotations. Using the information gained from the PCA, eight factors were used as an initial starting point on each section of the survey. Eigenvalues above the value of one were used as the cutoff to decide on the number of factors to examine. Any Eigenvalues below the value of one were not considered as factors. Once an initial factor analysis was run, a second analysis was run using a more appropriate cutoff for the number of factors, as indicated by the original analysis' Eigenvalues. For an item to load cleanly on a factor, the item's minimal coefficient value needed to be -+.600 or higher and the item must not have appeared on any other factor with a loading greater than -+.400, as recommended by Hocking, Stacks, and McDermott (2003). Once each section's

item groupings (factors) were established, an item analysis was run in NCSS to verify the selection (omission) of items. In each section's case, the item analyses (by examining the correlation between a particular item and the total of all other items) agreed with the selection (omission) of items by the factor analyses.

Micro-level communication competence section. The initial factor analysis indicated six factors would load on these questions. A second factor analysis was run, using six as the factor cutoff, and this analysis indicated five factors; thus five factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as two factors did not have any items load, using the criteria outlined above (see Table A-3). The three factors that did emerge contained seven items in one factor and three items in each of the other two factors. No other items loaded. Labels given to these factors originated from Wiemann (1977). The first factor was labeled "Affiliation/support," the second "Behavioral flexibility," and the third, "Social relaxation" (see Table A-4).

Macro-level communication competence section. The initial factor analysis indicated four factors would load on this portion of the survey. A second factor analysis was run, using four as the factor cutoff, and this analysis did indeed indicate four factors. Thus, four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor did not have any items load, using the criteria outlined above (see Table A-5). The three factors that did emerge contained three items in one factor and two items in each of the other two factors. No other items loaded. The first factor was labeled "Goal orientation," the second "Trust," and the third, "Hierarchy" (see Table A-6).

Micro-level ethics section. The initial factor analysis indicated four factors would load on this instrument. A second factor analysis was run, using four as the factor cutoff, and this analysis did indeed indicate four factors once again. Thus, four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor did not have any items load, using the criteria outlined above (see Table A-7). The three factors that did emerge contained eight items in one factor and two items in each of the other two factors. No other items loaded. The first factor was labeled "Ethical representation," the second "Unethical punishment," and the third, "Ethical flexibility" (see Table A-8).

Macro-level ethics section. The initial factor analysis indicated six factors would load on this part of the survey. A second factor analysis was run, using six as the factor cutoff, and this analysis indicated five factors. Thus, five factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as two factors did not have any items load, using the criteria outlined above (see Table A-9). The three factors that did emerge contained eight items in one factor and two items in each of the other two factors. No other items loaded. The first factor was labeled "Ethical representation," the second "Ethical commitment," and the third, "Ethical flexibility" (see Table A-10).

Revised survey instrument analysis

General information. Analysis of the revised survey instrument was conducted utilizing the 240 participants who participated in the study. This analysis included reliability tests, a principal component analysis and factor analyses to confirm the item selections of the revised (shortened and streamlined) sections of the overall instrument.

The omnibus test of normality indicated that none of the 44 items were normally distributed, thus, where applicable, robust statistical tests were run. A missing value analysis indicated that the majority of questions had at least one missing value out of the 240 responses. The missing values were not imputed, thus all statistical tests were run only on existing values.

Reliability. Overall, the Alpha reliability for all revised sections combined (44 questions) was .94. Individually, the Alpha reliability coefficients for each part of the survey were .90, .75, .91, and .87 for the micro-level communication competence section (13 questions), macro-level communication competence section (seven questions), micro-level ethics section (12 questions) and macro-level ethics section (12 questions) respectively. All Alpha reliability coefficients were above the cutoff of .70, as recommended by Frey, Botan and Kreps (2000).

Principal components analysis. An unrotated principal components analysis was run on the revised instrument data not only to get an initial "feel" for the data, but to also to discover the true dimensionality of the dataset. The PCA (using the Variance/Covariance matrix, as each of the four sections are scored using the same 1 to 7 Likert scale) indicated the dimensionality of the space for this dataset was about three to four, through the examination of a scatter plot of Eigenvalues (see Figure A-3), as between three and four PC's, the Eigenvalues level off. About 40% of the variation of the dataset fell within the first principal component, and almost 60% of the total variation of the dataset fell within the first four principal components. Compared to the original instrument's PCA examining eight principal components, the original set of 80 items were reduced to 44 items, without losing much information gained by the original

variables (80 items resulting in 61% variance within 8 PC's, compared to 44 items resulting in 58% variance within 4 PC's). To verify the reduction of items on the revised instrument, factor analyses were run on each of the four section of the revised survey instrument.

Factor analyses. As a validation tool for the selection and reduction of questions from the original survey instrument, confirmatory factor analyses (principal axis method) were run using Varimax rotations. Using the information gained from the revised instrument PCA, four factors were used as a guide for the number of factors to examine on each section of the survey. Eigenvalues above the value of one were used as the cutoff to decide on the number of factors to examine. Any Eigenvalues below the value of one were not considered as factors. Items loaded on factors by examining those items that were highly correlated within a certain factor and uncorrelated with all the other factors (Johnson, 1998). Once each section's item groupings (factors) were established, an item analysis was run in NCSS to verify the selection (and omission) of items from the original survey instrument. In each section's case, the item analyses (by examining the correlation between a particular item and the total of all other items) agreed with the selection (and omission) of items by the original instrument's factor analyses.

Micro-level communication competence section. Four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor had only one item load, using the criteria outlined above (see Table A-11). The three factors that did emerge contained six items in one factor, four items in the second factor, and two items in the last factor. A fourth factor was not used as only one item loaded on it. Labels given to these factors originated from Wiemann (1977). The first

factor was labeled "Affiliation/support," the second "Behavioral flexibility," and the third, "Social relaxation." The factor analysis revealed some changes in the structure of the factors, however, the overall "feel" of each factor still fit well with the original factor labels (see Table A-12). This may indicate the items were worded in ways that made them somewhat interchangeable within the survey instrument, while still conveying the same information as the original factor loadings.

Macro-level communication competence section. Four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor had only one item load on it, using the criteria outlined above (see Table A-13). The three factors that did emerge contained two items in each of the three factors. The first factor was labeled "Goal orientation," the second "Trust," and the third, "Hierarchy." The factor analysis revealed the revised macro communication competence section loaded items in factors exactly as the pretest factor analysis did, with the exception of item number 5, which loaded in a factor by itself (see Table A-14). This indicates a potentially reliable factor structure within this section of the survey instrument.

Micro-level ethics section. Four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor had only one item load, using the criteria outlined above (see Table A-15). Confirming the initial factor analysis run on the original instrument, the three factors that did emerge contained the same seven items in one factor and the same two items in each of the other two factors. The first factor was again labeled "Ethical representation," the second "Unethical punishment," and the third, "Ethical flexibility" (see Table A-16). A difference between the initial factor analysis and the confirmatory factor analysis was one item failed to load

on the first factor in the confirmatory factor analysis as it did in the initial factor analysis, while all other items loaded as expected (according to the initial factor analysis). This indicates a potentially reliable factor structure within this section of the revised instrument.

Macro-level ethics section. Four factors were examined for specific item loadings. After examining the item loadings, only three factors emerged, as one factor had only one item load on it. (see Table A-17). The factor analysis indicated one factor containing three factors: one with five items, and two with three items. The first factor was labeled "Ethical representation," the second "Ethical commitment," and the third, "Ethical flexibility." The factor analysis revealed some changes in the structure of the factors, however, the overall "feel" of each factor still fit well with the original factor labels (see Table A-18). This may indicate the items were worded in ways that made them somewhat interchangeable within the survey instrument, while still conveying the same information as the original factor loadings.

Analysis

General information. The data of the survey instrument were collapsed in two ways. First the data were divided into their four sections (micro-level ethics, micro-level communication competence, macro-level ethics, macro-level communication competence) and then each section's questions were added together to create four total section scores (see Table A-19). Second, the data were divided into the 12 factors created through the analysis of the survey instrument in the previous section (see Table A-20). The questions contained in each of the 12 factors were added together to create a total factor score for each factor. For example, the Micro-level communication competence

section factors of affiliation/support, behavioral flexibility, and social relaxation contained six, two, and four questions respectively. The scores for these questions were added together and the resulting numbers became total factor scores for each factor (see Table A-20). This was done as the collapsed data made interpretation with regard to the specific statistical tests used cleaner and more manageable.

Research questions 1(a) and 1(b): The focus of research questions 1(a) and (b) was the relationship among perceptions of ethics and perceptions of communication competence at an individual (micro) level and at an organizational (macro) level. These two research questions were examined through cluster analysis, by using the six total factor scores from the micro-level ethics and the micro-level communication competence sections (RQ1(a)) and by using the six total factor scores from the macro-level ethics and the macro-level communication competence sections (RQ1(b)). Cluster analysis was used for analysis as this statistical technique gives more information, and allows for more interpretation, compared to a correlation. A hierarchical clustering technique was used on the micro-level ethics and communication competence total factor scores first to get an initial impression of the number of clusters the data contained. Through the clustering technique, clusters or groups were found that were then analyzed according to the characteristics of each cluster (i.e., how the members of each cluster related to each other). Fuzzy clustering was used specifically, as it was hypothesized that the data will not contain definite, separate clusters, but rather overlapping clusters (as the data deal with human perceptions, which are not usually separate and distinct, but rather quite complex), which fuzzy clustering is better able to handle overlapping, non-distinct clusters than other types of clustering methods. A discriminant analysis was run last to

verify the clusters as well as stepwise variable selection techniques to verify the number of variables chosen and to verify the number of clusters used.

Research questions 2(a) and 2(b): Research question 2(a) and (b) centered around the relationship among demographic information and perceptions of ethics at an individual (micro) level and at an organizational (macro) level. These two research questions were also examined through cluster analysis, by using the total micro-level ethics section score and demographic information (RQ2(a)) and by using the total macro-level ethics score and demographic information (RQ2(b)). Through the clustering technique, clusters or groups were found that were then analyzed according to the characteristics of each cluster (i.e., how the members of each cluster related to each other). A discriminant analysis was run last to verify the clusters.

Research questions 3(a) and 3(b): Research questions 3(a) and (b) focused on the relationship among demographic information and perceptions of communication competence at an individual (micro) level and at an organizational (macro) level. These research questions were also examined through cluster analysis, by using the total micro-level communication competence section score and demographic information (RQ3(a)) and by using the total macro-level communication competence section score and demographic information (RQ3(b)). Through the clustering technique, clusters or groups were found that were then analyzed according to the characteristics of each cluster (i.e., how the members of each cluster relate to each other). A discriminant analysis was run last to verify the clusters.

Research question 4(a), 4(b), and 4(c): Research questions 4(a), (b), and (c) examined how perceivers of leaders describe leaders, communicatively competent

leaders; and ethical leaders. These three research questions were analyzed using qualitative methods, as these questions were open-ended, free response questions. The results were analyzed using a software text analyzer called VBPro (Miller, 1995). For the software to recognize the participants' descriptions, the descriptions were first entered into a Microsoft word-pad document. Then the word-pad document was run in the VBPro program. The program returned a listing of all words entered, the number of occurrences for each word, and the percentage of the occurrences of that word compared to all words given. The top five most occurring words were used as the participants' overall description of a leader, a communicatively competent leader, and an ethical leader.

CHAPTER IV

RESULTS

This study examines the relationship between leadership communication competence and ethics. The purpose of the present study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. The remainder of this chapter discusses the results of the data analysis according to the research questions asked.

Research questions

Research question 1(a): What is the relationship among perceptions of ethics and perceptions of communication competence at an individual (micro) level? In examining the dendrogram created by Ward's Minimum Variance clustering method (see Figure A-4), it appeared the data contained between two and three clusters. Thus, two to three clusters were examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data, and it was determined the data contained two clusters. According to the highest average silhouette value (.37), the highest Dunn's partition coefficient value (Fc(U) =.71), and the lowest Kaufman's partition coefficient value (Dc(U) = .10), a two-cluster solution was deemed to be the best solution (see Table A-21).

According to the stepwise variable selection procedure, all six of the micro-level total factor scores were statistically significant and were therefore included in all analyses (see Table A-22). The cross-validation table indicated only 7 of 240 data points were

misclassified for a classification error rate of just under 3% (see Table A-23), and indication of good predictive value. As a second validation of the number of clusters chosen, a three-cluster solution was run on the linear discriminant function and according to that cross-validation table, 16 of 240 data points were misclassified for a classification error rate of almost 7% (see Table A-24). Once again, a two-cluster solution appeared to be the best solution.

Means were run on the two clusters to better understand how the six factors related to each other within each of the two clusters. In general, the two clusters grouped according to a "high" and "low" score for the six total factor scores. In cluster 1 (the "high" score cluster) each total factor score average was closer to the maximum value possible for each factor (see Table A-25). In cluster 2 (the "low" score cluster) each total factor score average was closer to the minimum value possible for each factor (see Table A-26). Visually, the two clusters grouped in this manner, as evidenced when plotting the total micro-level communication competence score by the micro-level ethics score, as seen in Figure A-5.

The examination of the means indicated that there appeared to be a strong, positive relationship between perceptions of ethics and perceptions of communication competence at the individual (micro) level. From the "low" cluster to the "high" cluster, each factor score increased in value a significant amount, as these factor scores were all deemed significant (at the .05 level) and were kept in the discriminant analysis, according to step-wise variable selection (they were all adding a significant amount of information to the cluster).

The factor means of the "low" cluster were all closer to the minimum possible score of the factor (i.e., if the minimum possible raw score for a factor was six, the mean of that factor was closer to that minimum score than it was to the maximum possible raw score). By the same token, the factor means of the "high" cluster were all closer to the maximum possible score of each cluster. Thus, this indicates a positive relationship, as all factor means in the "low" cluster were lower than all factor means of the "high" cluster. T-values of each factor indicated the most influential factors were the individual communication competence factors, each having a value of just over 14 (see Table A-27).

The demographic make-up of each cluster was very similar. The mean age for the "low" cluster was 44.2 years and for the "high" cluster was 41.31 years. Similarly, the average number of years works in the workforce for the "low" cluster was 23.53 years and 20.19 years for the "high" cluster. The average number of years worked in the current organization was nearly identical for both "low" and "high" clusters at 8.98 and 8.09 years respectively. Finally, the median and mode for the "low" cluster indicated non-profit organizations, while the median and mode for the "high" cluster indicated those participants worked for for-profit organizations.

Research question 1(b): What is the relationship among perceptions of ethics and perceptions of communication competence at an organizational (macro) level? A hierarchical clustering technique was used on the macro-level ethics and communication competence total factor scores first to get an initial impression of the number of clusters the data contained. In examining the dendrogram created by Ward's Minimum Variance clustering method (see Figure A-6), it appeared the data contained two clusters. Two clusters were examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data, and it was determined the data did indeed contain two clusters. According to the highest average silhouette value (.32), the highest Dunn's partition coefficient value (Fc(U) =.69), and the lowest Kaufman's partition coefficient value (Dc(U) = .10), a two-cluster solution was deemed to be the best solution (see Table A-28).

According to the stepwise variable selection procedure, all six of the macro-level total factor scores were statistically significant and were therefore included in all analyses (see Table A-29). The cross-validation table indicated only 7 of 240 data points were misclassified for a classification error rate of just under 3% (see Table A-30), indicating good predictive value. As a second validation of the number of clusters chosen, a three-cluster solution was run on the linear discriminant function; according to that cross-validation table, 17 of 240 data points were misclassified for a classification error rate of over 7% (see Table A-31). Once again, a two-cluster solution appeared to be the best solution.

Means were run on the two clusters to better understand how the six factors related to each other within each of the two clusters. In general, the two clusters grouped according to a "high" and "low" score for the six total factor scores. In cluster 1 (the "high" score cluster) each total factor score average was closer to the maximum value possible for each factor (see Table A-32). In cluster 2 (the "low" score cluster) each total factor score average was closer to the minimum value possible for each factor (see Table A-33). Visually, the two clusters grouped in this manner, as evidenced when plotting the total macro-level communication competence score by the macro-level ethics score, as seen in Figure A-7.

The examination of the means indicated that there appeared to be a strong, positive relationship between perceptions of ethics and perceptions of communication competence at the organizational (macro) level. From the "low" cluster to the "high" cluster, each factor score increased in value a significant amount, as these factor scores were all deemed significant (at the .05 level) to be kept in the discriminant analysis, according to step-wise variable selection (they were all adding a significant amount of information to the cluster).

The factor means of the "low" cluster were all closer to the minimum possible score of the factor (i.e., if the minimum possible raw score for a factor was six, the mean of that factor was closer to that minimum score than it was to the maximum possible raw score). By the same token, the factor means of the "high" cluster were all closer to the maximum possible score of each cluster. Thus, this indicates a positive relationship, as all factor means in the "low" cluster were lower than all factor means of the "high" cluster. T-values of each factor indicated the most influential factors were the organizational ethics factors, each having a value over 12 (see Table A-34).

The demographic make-up of each cluster was very similar. The mean age for the "low" cluster was 45.33 years and for the "high" cluster was 42.16 years. Similarly, the average number of years works in the workforce for the "low" cluster was 23.94 years and 21.12 years for the "high" cluster. The average number of years worked in the current organization was 9.79 years for the "low" cluster and 7.68 years for the "high" cluster. Finally, the median and mode for the "low" cluster indicated those participants in that clusters worked for non-profit organizations, while the median and mode for the "high" cluster indicated those participants worked for for-profit organizations.

Research question 2(a): What is the relationship among demographic information and perceptions of ethics at an individual (micro) level, was examined through the use of cluster and discriminant analysis. A hierarchical clustering technique was used on demographic information (sex, age, race, education level, full- or part-time, profit or non-profit, number of years in the workforce, number of years at the present organization, manager or non-manager, and married or not married) and on the total micro-level ethics score to get an initial impression of the number of clusters the data contained. In examining the dendrogram created by Ward's Minimum Variance clustering method (see Figure A-8), it appeared, that the data contained two clusters. Thus, two clusters were examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data. According to the highest average silhouette value (.20), the highest Dunn's partition coefficient value (Fc(U) = .38), and the lowest Kaufman's partition coefficient value (Dc(U) = .27), a two-cluster solution was deemed to be the best solution (see Table A-35).

According to the stepwise variable selection procedure, the total micro-level ethics score was not statistically significant in relation to the demographic variables. Therefore no relationship among demographic information and perceptions of ethics at the individual (micro) level was discovered (see Table A-36).

As a validation and support step to the previous statistical test, means were run on the two clusters (which included all 10 demographic variables and the total micro-level ethics score) to help confirm that the total micro-level ethics score had no relation to the demographic variables. An examination of the means of the two clusters' micro-level

ethics scores showed that both clusters' average micro-level ethics scores were virtually the same (64.32 compared to 65.15). Because these values were so close to each other, the perceptions of individual ethics most likely did not discriminate well between cluster one and cluster two.

Research question 2(b): What is the relationship among demographic information and perceptions of ethics at an organizational (macro) level, was examined through the use of cluster and discriminant analysis. A hierarchical clustering technique was used on demographic information (sex, age, race, education level, full or part-time, profit or non-profit, number of years in the workforce, number of years at the present organization, manager or non-manager, and married or not married) and on the total macro-level ethics score to get an initial impression of the number of clusters the data contained. In examining the dendrogram created by Ward's Minimum Variance clustering method (see Figure A-9), it appeared the data contained between three and four clusters. Thus, three and four clusters were examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data, and it was determined the data most likely contained two clusters. After examining the three- and four-cluster solutions (as suggested by the Ward's dendrogram) neither one appeared to be the best solution. A two-cluster solution contained the best average silhouette value (.20), the highest Dunn's partition coefficient value (Fc(U) = .38), and the lowest Kaufman's partition coefficient value (Dc(U) = .26) (see Table A-37). Therefore, a two-cluster solution was adopted. Clustering, discriminant analysis, and stepwise variable selection techniques (i.e., proc cluster, proc discrim, and proc stepdisc) were next run to verify the number of variables chosen, the number of clusters chosen, and to better

understand the structure of the clusters (through examination of item means within each cluster).

According to the stepwise variable selection procedure, 7 of 11 variables were found to be statistically significant. These 7 variables (total macro-level ethics score, sex, age, marital status, number of years in the workforce, number of years in the present organization, and position) were therefore included in all analyses (see Table A-38). A cross-validation table indicated that 11 of 205 data points were misclassified for a classification error rate of just over 5% (see Table A-39), indicating good predictive value. As a second validation of the number of clusters chosen, a three-cluster solution was run on the linear discriminant function; according to that cross-validation table, 13 of 205 data points were misclassified for a classification error rate of over 6% (see Table A-40). Thus, again, a two-cluster solution appeared to be the best solution, as this solution had the highest average silhouette value, the highest Dunn's value and the lowest Kaufmann's value, in addition to predicting better than the three-cluster model or a four-cluster model, which had an error rate of almost 13% (26 of 205 misclassifications).

Means were run on the two clusters to better understand how the six demographic variables and the total macro-level ethics score related to each other within each of the two clusters. In general, the two clusters grouped according to "high experience" and "low experience" for the total macro-level ethics score, age, and number of years in the workforce. In cluster 1 (the "high experience" cluster) each total macro-level ethics score average was higher than in cluster 2, as was age, and number of years in the workforce (see Table A-41). In cluster 2 (the "low experience" cluster) each total factor score average was closer to the minimum value possible for each factor (see Table A-42). T-

values of the means between the groups indicated that age and years in the workforce were influencing the results most, both having t-values over 14 (see Table A-43). The medians and modes for sex, marital status and position held indicated that the "high experience" cluster contained mostly married men, who held manager-type positions and the "low experience" cluster contained mostly not-married females who were non-managers. Visually, the two clusters grouped in this manner, as evidenced when plotting the total macro-level ethics score by age and number of years in the workforce (see Figure A-10).

The results of research question 2(b) indicated that married men who are older, have been in the workforce and in their current organization longer, and who are managers perceive organizations as behaving more ethically than not-married women who are non-managers, not as old, who have been in the workforce half the time and in their current organization a third of the time as the other group.

Research question 3(a): What is the relationship between demographic information and perceptions of communication competence at an individual (micro) level, was examined through the use of cluster and discriminant analysis. A hierarchical clustering technique was used on demographic information (sex, age, race, education level, full or part-time, profit or non-profit, number of years in the workforce, number of years at the present organization, manager or non-manager, and married or not married) and on the total micro-level communication competence score to get an initial impression of the number of clusters the data contained. In examining the dendrogram created by Ward's Minimum Variance clustering method (see Figure A-11), it appeared the data

contained between two and three clusters. Thus, two and three clusters were examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data, and it was determined the data most likely contained two clusters. After examining the two- and three-cluster solutions (as suggested by the Ward's dendrogram) the two-cluster solution appeared to be the best solution. A two-cluster solution contained the best average silhouette value (.20), the highest Dunn's partition coefficient value (Fc(U) = .38), and the lowest Kaufman's partition coefficient value (Dc(U) = .26) (see Table A-44). Therefore, a two-cluster solution was adopted.

According to the stepwise variable selection procedure, the total micro-level communication competence score was not statistically significant in relation to the demographic variables; therefore, no relationship between demographic information and perceptions of communication competence at the individual (micro) level was discovered (see Table A-45).

As a validation and support step to the previous statistical test, means were run on the two clusters (which included all 10 demographic variables and the total micro-level communication competence score) to help confirm that the total micro-level communication competence score had no relation to the demographic variables. An examination of the means of the two clusters' micro-level communication competence scores showed that both clusters' average micro-level communication competence scores were very close to each other (71.45 compared to 67.63). Because these values were quite close to each other, they most likely did not discriminate well between cluster one and cluster two in relation to the other variables.

Because the micro-level communication competence scores were not good discriminators between clusters, perceptions of communication competence at the individual level is not dependent upon age, sex, race, education level, marital status, work status (full- or part-time), years in the workforce, years in the current organization, position held (manager or non-manager) or type of organization worked for (profit or non-profit).

Research question 3(b): What is the relationship between demographic information and perceptions of communication competence at an organizational (macro) level, was examined through the use of cluster and discriminant analysis. A hierarchical clustering technique was used on demographic information (sex, age, race, education level, full or part-time, profit or non-profit, number of years in the workforce, number of years at the present organization, manager or non-manager, and married or not married) and on the total macro-level communication competence score to get an initial impression of the number of clusters the data contained. In examining the dendrogram created by Ward's Minimum Variance clustering method in NCSS (see Figure A-12), it appeared the data contained three clusters. Thus, the three-cluster solution was examined in the fuzzy clustering analysis as a starting point.

A fuzzy clustering technique (fuzzifier constant = 1.25) was run on the data, and it was determined the data most likely contained two clusters. After examining the three-cluster solution (as suggested by the Ward's dendrogram) it did not appear to be the best solution in looking at average silhouette, Dunn's and Kaufmann's values. A two-cluster solution contained the best average silhouette value (.20), the highest Dunn's partition

coefficient value (Fc(U) = .38), and the lowest Kaufman's partition coefficient value (Dc(U) = .27) (see Table A-46). Therefore a two-cluster solution was adopted.

According to the stepwise variable selection procedure, the total macro-level communication competence score was not statistically significant in relation to the demographic variables; therefore, no relationship between demographic information and perceptions of communication competence at the organizational (macro) level was discovered (see Table A-47).

As a validation and support step to the previous statistical test, means were run on the two clusters (which included all 10 demographic variables and the total macro-level communication competence score) to help confirm that the total macro-level communication competence score had no relation to the demographic variables. An examination of the means of the two clusters' macro-level communication competence scores showed that both clusters' average macro-level communication competence scores were very close to each other (34.76 compared to 35.25). Therefore, they most likely did not discriminate well between cluster one and cluster two in relation to the other variables.

Because the macro-level communication competence scores were not good discriminators between clusters, perceptions of communication competence at the organizational level is not dependent upon age, sex, race, education level, marital status, work status (full- or part-time), years in the workforce, years in the current organization, position held (manager or non-manager) or type of organization worked for (profit or non-profit).

Research question 4: This research question was open-ended, asking participants to list characteristics of specific types of leaders. The question was analyzed using a software text analyzer called VBPro (Miller, 1995). The program returned a listing of all words entered, and the number of occurrences for each word. The top ten most occurring descriptors were used as the participants' overall description of a leader, a communicatively competent leader, and an ethical leader.

Research question 4(a). Research question 4(a) asked, how do perceivers of leaders describe leaders? Of 156 descriptors cited, the ten most reported descriptors for this question, in order, were: good listener, good communicator, honest, caring, knowledgeable, organized, strong, trustworthy, confident, and open (see Table A-48). These 10 descriptors accounted for 53.8% of all descriptors given (n=84).

Research question 4(b). Research question 4(b) asked, how do perceivers of leaders describe communicatively competent leaders? Of the 108 descriptors cited, the ten most reported descriptors for this question, in order, were: good listener, open, honest, caring, friendly, approachable, competent, decisive, energetic, and empathetic (see Table A-49). These 10 descriptors accounted for 72.3% of all descriptors given (n=78).

Research question 4(c). Research question 4(c) asked, how do perceivers of leaders describe ethical leaders? Of the 99 descriptors cited, the ten most reported descriptors for this question, in order, were: honest, friendly, good listener, open, strong, approachable, caring, dependable, trustworthy, and accountable (see Table A-50). These 10 descriptors accounted for 48.5% of all descriptors given (n=48).

Overall, four descriptors cited were common to each type of leader described: good listener, honest, open and caring. This indicates that an overlap of communication competence and ethics exists when thinking about descriptions of leaders.

In the following chapter, a discussion of why these results were found, a discussion of limitations of the study, and a discussion of directions for future research is offered.

CHAPTER V

DISCUSSION

The purpose of the present study is to explore, from the observer perspective, the relationship ethics and leadership communication competence have at a microsystem (individual) level and at a macrosystem (organizational) level. A discussion of the results is organized around the study's research questions. In addition, the limitations of the study and directions for future research are discussed.

The results of this study suggest that a strong, positive relationship exists between perceptions of ethics and perceptions of communication competence at an individual and organizational level. This relationship appears to be independent of demographic variables in most cases. Factors such as age, sex, race, marital status, education level, years on the job, years in the workforce, position held (manager/non-manager) or type of organization worked for (profit/non-profit) did not seem to have an effect on perceptions of communication competence and ethics. Moreover, as perceptions of communication competence increase, so do perceptions of ethics, and vice-versa. These results are interesting in light of current events in relation to organizations, leaders, communication and ethics. Specifically, Adelphia Communications Corporation, Credit Suisse First Boston, Enron, Tyco, and WorldCom Incorporated are all organizations that employed leaders who are going to trial this year for various "ethical lapses." Thus, it appears that although people perceive ethics and communication competence (both micro and macro) as being positively related (i.e., as one increases, it is accompanied by increases in the

other), organizational leadership may not have these same perceptions, as evidenced by these recent organizational developments.

Relationship between communication competence and ethics

Research question 1(a) and 1(b): Research questions 1(a) and 1(b) center around the relationship between perceptions of ethics and perceptions of communication competence at individual and organizational levels. The results of these research questions indicate the presence of a strong, positive relationship between these two variables at both an individual and organizational level. Several reasons may account for this relationship.

First, although limited empirical evidence exists that links these two concepts, scholars have long believed a relationship between ethics and communication competence exists. The beliefs concerning ethics and communication competence date back to the earliest writings on communication. For example, Aristotle conceptualized this relationship in what he called "ethos." "For Aristotle, ethos is 'proof' that is generated in the minds of the decision makers by 'the speaker's person character when the speech is so spoken as to make us think him credible'" (Rieke & Sillars, 1993, p. 170). This statement implies a relationship; as Aristotle points out, if a speaker communicates better, he or she will be perceived as having increased "ethos" (ethics). Also, within the classical rhetorical school, students were taught to speak well so that the audience would perceive the speaker as having good moral character and projecting goodwill toward the audience (Rieke & Sillars, 1993).

Second, the link between lying (not being ethical) and communicating has a strong foothold on our "common sense" (Johannesen, 1996). Common sense dictates that

when a person is lying, that person will not competently communicate. That person will most likely stutter, search for words, have a shaky voice, be nervous, be stand-offish, and in general, will communicate very poorly (Knapp & Vangelisti, 1996). These behaviors indicate to us (as perceivers) that this person is probably lying to us because if the person were not lying, he/she would not have to "think" of what to say next, he/she would not be nervous, would be more friendly, warm, and approachable (Seager & Wiseman, 1999). In other words, if the person were ethical, he or she would be engaging in communication behaviors that would give no indication that something is being hidden. When a perceiver senses another person is hiding something, or not communicating competently, the perceiver often labels the other person as potentially unethical. For example, Rotenberg and Sullivan (2003) discovered that children who witnessed speakers who did not have direct eye contact and who exhibited nervous movements labeled these people as "liars." The children in the study assigned a general feeling of dishonesty to speakers who were not competently communicating.

Third, perhaps ethical behaviors and communicatively competent behaviors are similar. As evidenced by the responses in research questions 4(a) through 4(c), there do seem to be various characteristics common to each type of leader (ethical and communicatively competent). Perhaps the overlap of common behaviors between competent communication and ethics is larger than one might normally think. As an example of the overlap of behaviors and communication competence, Redmond (1985) discovered a .98 correlation between communication competence and empathy, indicating that communication competence and empathy were dependent upon the same

set of perceptual and expressive skills. Perhaps the relationship between communication competence and ethics has similar dynamics as that found by Redmond.

Specifically, the participants of this study, gathered from a non-random snowball sample, may have had similar characteristics among themselves. For instance, the first people to take the survey encouraged others to take the survey. The first people most likely told people they liked about the survey, and in general, humans like people who are similar to us (e.g., Knapp & Vangelisti, 1996; Wood, 1996). Therefore, the participants of this study may have used similar criteria upon which to base perceptions of ethics and communication competence, thus creating an overlap of behaviors used in the perception of communication competence and the perception of ethics.

This relationship between perceptions of ethics and perceptions of communication competence has important implications for leaders and organizations. Since the relationship is positively associated (i.e., as one increases, it is accompanied by increases in the other), it would reason that if leaders or organizations wanted to be viewed as more ethical, these leaders or organizations should develop their communication skills to become more communicatively competent. If organizations or leaders are viewed as more communicatively competent, they should also be viewed as more ethical (according to the results of this study). The reverse could be beneficial as well. If leaders or organizations wanted to be viewed as more communicatively competent, they might benefit from behaving more ethically. The perception that a leader or an organization is ethical leads the perceiver to believe that that leader or that organization communicates more competently because perhaps more non-competent (i.e., poor) communication will

be tolerated, as this non-competent communication relates to the ethicality of the one being perceived.

Research question 2(a): Research question 2(a) centers around the relationship between demographic information and perceptions of ethics at an individual (micro) level. The study suggests that there is no relationship between these two concepts. That is, people's perceptions of leader ethics are not dependent upon age, sex, race, marital status, education level, years on the job, years in the workforce, position held (manager/non-manager) or type of organization worked for (profit/non-profit).

Ethics is a broad concept that transcends many influences, including demographic information. The notion of behaviors people engage in that are representative of the right thing and wrong thing to do in a given setting and situation supports the idea that ethics is something every person has within him or herself to some degree. Ethics is very hard to define, yet many people claim, "I'll know it when I see it." If this is the case, it makes sense that demographic information would have no relationship with individual ethics. If everyone is ethically "hard-wired" to some extent, then perhaps certain variables, such as the demographic characteristics collected and used in this study, have no effect on the conceptualization of ethics. The notion is that ethics might, at a fundamental level, be so ingrained in people that demographic variables do not have enough influence upon people to alter their perceptions of ethics. The result of this research question could have interesting implications for individual leaders.

These results indicate individual leaders' ethicality may be viewed similarly among all groups within an organization. Leaders may not need to be concerned with how ethical they appear to men compared to women, compared to the young, compared

to the old, or whether a person has been with the company for 30 years or for 3 months. Each different group, according to these results, will view ethics in roughly the same manner. However, leaders who intend to deceive may have an easier time fooling most people in an organization, as this same implication from the results would apply: since ethical behaviors might be viewed similarly among all groups within an organization, unethical leaders would not have to engage in different ethical tactics to ensure that the organization as a whole would be deceived. To be viewed as more ethical, leaders simply would have to behave in general ethical ways which would mask unethical behaviors. For example, Ken Lay, former CEO of Enron, and Dennis Kozlowski and Marc Swartz, former CEO and CFO, respectively, of Tyco, may have behaved in generally the same ethical manner, such that the people in the organizations they worked with did not detect, nor were convinced, that these leaders were being unethical.

Research question 2(b): Research question 2(b) centers around the relationship between demographic information and perceptions of ethics at an organizational (macro) level. The results of this research question revealed contradictory findings compared to RQ2(a). Interestingly, the results of this research question reveal that certain demographic variables such as age, years on the job, years in the workforce, and position held (manager/non-manager), influences a person's perception of ethics at the organizational level.

These results indicate that specific types of people (according to demographic information) view organizational ethics differently than other types of people. The results suggest that people who are older, have been in their present organization and in the workforce longer, and who are, in general, managers, view organizations as behaving

more ethically than do people who are not as old, who have been in their present position only a third of the time, and have been in the workforce for half of the time as the other group. Various reasons may explain this finding.

In the analysis, the data from this research question grouped into two clusters-a "high" experience and a "low" experience cluster. Experience is at the core of this finding. When a person has been in an organization for a certain amount of time, that person becomes part of the organizational culture (e.g., Conrad & Poole, 2002; Kreps, 1990; Shockley-Zalabak, 1995). Becoming part of the culture within an organization entails adopting certain beliefs and values the organization holds. One of those values could be that the organization is "ethical." The longer a person is in that organization, the stronger this value may become, if it is important to the organization (Conrad & Poole, 2002). Also, the longer a person is a member of an organization, and especially if the person is a manager, the more that person will take ownership of the organization's behavior (Tao, Takagi, Ishida, & Masuda, 1998). This is related to affiliation, in that the longer a person is a member of an organization, the more that person is affiliated with the organization. This affiliation is a connection others see in the person in relation to an organization. Obviously, people do not want to be affiliated with organizations that have negative reputations. Thus, the more a person is affiliated with an organization (stemming from the length of tenure at that organization), the more that person will view the organization as being good and ethical (Conrad & Poole, 2002).

Perhaps from the specific sample used in this study, only people who were enthusiastic and satisfied with their organizations participated in the survey. The core of the snowball sample consisted of a library system, an engineering/architectural firm, and

a Boy Scout organization. The nature of these organizations might be such that they foster happy employees; those types of employees who, the longer their tenure in an organization, would more strongly and enthusiastically embrace the organizational culture to which they belong. Library employees, architects, and engineers all need specific certificates and/or schooling to be employable. Perhaps by the time these people actually become members of these types of organizations, they already know they want to work at these professions (because of the specific schooling required) and thus naturally have a higher perception of those organizations to which they belong and associate themselves with. By the same token, those involved with the Boy Scouts are mostly volunteers. Since these people are not being paid, they too might have a higher than average perception of the organization to which they belong, as they would work at the Boy Scouts organization for reasons other than money. The implications for organizations stemming from this result are very important.

This result should encourage organizations to rethink how they view organizational members in relation to age and tenure at the organization. Many times organizations will "strongly suggest" that a member retire or leave the organization. According to this study's results, if organizations are placing emphasis on being ethical, then the older, more experienced members should be retained, as they will be the champions of that organizational value. These older, more experienced members would perpetuate that value and would ensure that other organizational members would incorporate the value into their organizational belief system (Conrad & Poole, 2002). Organizations would recognize this process as a basis of forming loyalty to the organization, which is invaluable to organizations. This would mean less turnover,

perhaps more satisfied and productive employees, greater loyalty to the organization, and a more stable organizational environment. Also, this finding may indicate that, for example, even though Ken Lay might be viewed as an unethical crook, the older, more experienced organizational members may still harbor good and ethical feelings for Enron as an organization overall. This finding indicates that more experienced organizational members assign a different set of ethical responsibilities to organizations than do individual leaders.

Research questions 3(a) and 3(b): Research questions 3(a) and 3(b) center around the relationship between demographic information and perceptions of communication competence at the individual (micro) and organizational (macro) levels. The results of these research questions indicate no relationship between these two concepts at either the micro or macro-level. The results suggest people's perceptions of individual leader and organizational communication competence are not dependent upon age, sex, race, marital status, education level, years on the job, years in the workforce, position held (manager/non-manager) or type of organization worked for (profit/non-profit).

Like ethics, communication competence is a broad notion, entailing many behaviors, which may transcend variables such as demographic characteristics. For example, Montgomery (1988) argues that criteria for effective (competent) communication are created and sustained by the society to which a person belongs. Everyone, regardless of demographic characteristics, communicates at some level within society: everyone has experience communicating and viewing others communicate. Thus, no matter how old, how many years a person has been in the workforce, whether a person is male or female, or manager or non-manager, most people will perceive micro and

macro communication competence behaviors in roughly the same manner, based upon their society.

Leaders and organizations both can benefit from this information. This finding indicates that leaders and organizations in general may not have to necessarily change or reconfigure messages for different groups and types of people to be viewed as communicatively competent. This statement needs to be read with trepidation however, as it does not imply that to be successful in communication, a leader or an organization should communicate the same way to everyone. To successfully communicate to different organizational groups and people, messages may have to be tailored to those specific groups and people, as reflected in the micro-level communication competence factor of "behavioral flexibility," created from the study's pre-test. However, these results do indicate a baseline communication competence level may be accomplished without modifying messages to different organizational groups. This also may be a function of how communication competence is visualized. In other words, as what may seem competent to one observer may not seem competent to another. According to Parks (1994), although there is a great amount of variation to the behaviors people assign to communication competence (as competence is evaluative by nature), there is also a remarkable amount of agreement to what constitutes incompetence. Either way, different organizational members may have a more common conception of leader and organizational communication competence than previously thought. Again, unethical leaders may use this information to appear communicatively competent to the organization for which they work. Unethical leaders would not have to change

communication patterns for different groups of organizational members, in order to be viewed as communicatively competent, once the "baseline" competencies were mastered.

Research questions 4(a), 4(b), and 4(c): These three open-ended questions center around how observers of leaders describe (a) leaders, (b) communicatively competent leaders, and (c) ethical leaders. The results of these research questions indicate that people do perceive these three different types of leaders as having commonalities. Out of the 10 most listed characteristics for each type of leaders, 4 characteristics were common: good listener, honest, open, and caring. This indicates that there is some overlap in behaviors among these three types of leaders. "Good listener" was the number one descriptor for a leader and for a communicatively competent leader, and was number three for an ethical leader. "Honest" was the fifth most occurring descriptor for a leader, the third most occurring for a communicatively competent leader, and the most occurring descriptor for an ethical leader. "Open" was the tenth most occurring descriptor for a leader, the second most occurring for a communicatively competent leader, and the fourth most occurring for an ethical leader. Finally, "caring" was the third most used descriptor for a leader, the fourth most used descriptor for a communicatively competent leader, and the eighth most used descriptor for an ethical leader. Two other descriptors were listed in the descriptions for both communicatively competent leaders and ethical leaders: friendly and approachable.

Being a good listener was the most cited descriptor for two of the three types of leaders described, and it was the most cited descriptor overall. This is consistent with the findings of Haas and Arnold (1995) in which they indicate that listening is important to organizational member's judgments of co-worker's communication competence. In

relation to the operational definition of communication competence used for the present study, these descriptors fit well, as they all help to make communication more appropriate and effective in a given context. In addition, these descriptors are related to the factors created from the pre-test as the descriptors would mesh with the factors well. For example, the descriptors given to describe a communicatively competent leader (open, caring, friendly, and approachable) would fit into the "affiliation/support" factor, and "being a good listener" would fit into the "social relaxation" factor contained in the micro-level communication competence section of the survey instrument. The descriptors used to describe an ethical leader (honest, dependable, trustworthy, caring, accountable) would fit into the "ethical representation" factor of the micro-level ethics section of the survey instrument. These findings have extremely important implications for leaders.

Leaders should listen to their organizational members, they should be honest, and they should care about others. If only these three characteristics were evident, according to this research, a leader's behavior would be seen as more ethical and more communicatively competent. These prescriptions may seem superficial and glib, but if more leaders were good listeners, more honest, and more caring, the world might overflow with better and more productive organizations.

Besides serving as good advice for leaders, this research question also helps to validate, to some degree, other results which found that as perceptions of ethics increase, perceptions of communication competence increase. Because both perceptions of these concepts increase, a set of behaviors common to both characteristics seem to exist. Further, three of the ten most reported descriptors of leaders are common among all three types of leaders, as evidenced in this study.

Overall, the results of this study indicate that communication competence and ethics are positively related at both the individual and organizational levels. With the exception of perceptions of organizational ethics, demographic variables had no influence within the study. In relation to organizational ethics, older, more experienced (in both overall experience and current organizational experience), married male managers rated their perceptions of organizational ethics higher than younger, less experienced, not-married female non-mangers. An overlap of perceptions between communication competence and ethics was found which may indicate these two concepts are not only positively related, but also may stem from some of the same behaviors.

These results have implications related to the literature utilized in the study. As an empirical examination of Jablin and Sias' model of communication competence, the results do support the notion that communication competence occurs and should be studied at different levels. The results found that participants view communication competence in relation to ethics in similar ways at both the individual and organizational levels. This indicates people do perceive communication competence occurring at the organizational level in addition to the individual level, as the organizational level results do parallel the individual level results. This also supports Jablin and Sias' idea that individuals within organizations (micro-level) do influence the organizational communication competence (macro-level) as a whole, again, as the individual and organizational scores mirrored each other.

The social cognitive perspective explains how people view and think about human interaction. Overall, these results could be explained by social cognition. Social cognition states people group and categorize thoughts of others into scripts and/or

schemas, which are akin to guides or maps to human behavior through which people can compare actual human behavior that is observed and make judgments and evaluations of those behaviors. People group and categorize communication competence and ethics similarly, according to the results of this study (as the results support a positive relationship between the two). This would indicate people use similar scripts and/or schemas in thinking about the competence and ethicality of others, and in using similar scripts and schemas, people would evaluate others' competence and ethicality as being positively related, which, again, was supported by this study's results.

As stated earlier, little, if any research has investigated the relationship between communication competence and ethics, and therefore, the question of whether ethics were a part of people's conception of others' communication competence had been left unanswered. The results of the present study support the idea that ethics are a component of communication competence, and should be included in studies of communication competence. This is especially important when viewing competence and ethics through a social cognitive "lens," as similar scripts and schemas are used to view both the competence and ethics of others.

This study's results can help us to understand the importance of communication competence and ethics in relation to leadership. Traditionally, leadership research has been concerned with communication abilities and competencies, but not with ethics. Researchers (e.g., Aristotle; Bass, 1990; Bogue, 1994) have indicated that ethics should be a component of leadership, however, empirical studies of leadership ethics have been few. The current study's results suggest that communication competence and ethics are

positively related, and thus, when studying leadership communication competence, it would be important to examine leadership ethics as well.

Limitations

Although this study reveals information that is valuable to leaders and organizations and adds to the organizational communication body of knowledge, various limitations of the study are noted.

First, the participants of this study were from a small non-random, snowball sample. Thus, the results may not be specifically generalized to other populations, but may serve as a framework. These results may only be applicable to the present study. Also, in using this sampling technique there, is no way of knowing if the participants really were actually organizational members.

Third, the data collected from the participants were all non-normal and contained missing values scattered throughout the survey. Various methods to deal with missing data exist; one is not necessarily better than the other (Johnson, 1998). However missingness is handled, there is still the potential for missing values skewing the results. This might have skewed the present study's results to the point of reporting inaccurate findings in the results section, and leading to erroneous conclusions in the discussion section.

Fourth, in the effort to reduce the number of items in the survey instrument, some factors only had two items load. This potentially makes for weak factor structures and those factors may not have truly represented the concept being studied.

Last, the survey instrument asked participants to think of a specific leader and a specific organization upon which to base their answers. This was problematic as there

was no control for who participants were thinking. Some might have thought of well-known leaders, such as the president, while others may have thought about their own boss. Either way, there was no consistency in how people interpreted that portion of the survey directions. This was problematic, as answers to the survey questions may not truly have reflected the relationship among ethics and communication competence since participants were not all thinking of the same leader or organization.

Future research

The results of this study have indicated that there is a strong, positive relationship among ethics and leadership communication competence at both an individual (micro) and organizational (macro) level. Future research within the topic of ethics and communication competence should focus on a few key areas.

The present study examined the relationship between communication competence and ethics through the use of clustering techniques. In the analysis, only the correctly grouped observations were examined and analyzed. Future research should examine the observations which were incorrectly grouped, and investigate whether similarities exist among those observations which contributed to their misclassifications. Also, future research should examine the overlap between the clusters, as this examination may indicate additional clusters that were not found in the initial analysis.

In relation to the clusters themselves, future examination of the data should include more analysis of the structure and differences within the groupings. Items such as profit v. non-profit, male v. female, and manager v. non-manager should be examined within the existing clusters to get a better feel of the make-up of the clusters, and to give more information about why the clusters grouped in the manner they did.

Although the present study examined the relationship between ethics and communication competence within for-profit and non-profit organizations (demographic variable; found to be non-significant in all research questions), one area future research should explore is examining ethics and communication competence in relation to different professions, organizations and contexts. For example, future studies might examine the relationship of these concepts within professions/ industries such as bankers, lawyers, medical doctors, sports coaches, and teachers. Organizationally, future research could explore specific organizations such as banks, law firms, hospitals, football teams and universities. Contextually, future research might look at the relationship of these variables within various different situations within organizations. For example, is the relationship among ethics and communication competence constant in normal daily operations compared to emergency or high pressure situations within organizations?

Future research should also focus on the experience level of organizational members in relation to ethics and communication competence. For example, although the present study touched upon this aspect, the actual relationship among these variables needs to be more fully examined and understood.

Finally, future research should examine the gap between the results of this study and application of these results in the "real world." Once again, according to the findings, there is a relationship between how people view ethics and communication competence. Yet there seems to be much leadership within the United States that is not exemplifying this relationship (e.g., leaders communicate well, yet they are quite unethical). Researching these areas of ethics and communication competence would add to the organizational communication body of knowledge.

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APPENDICES

Appendix A

Tables and figures

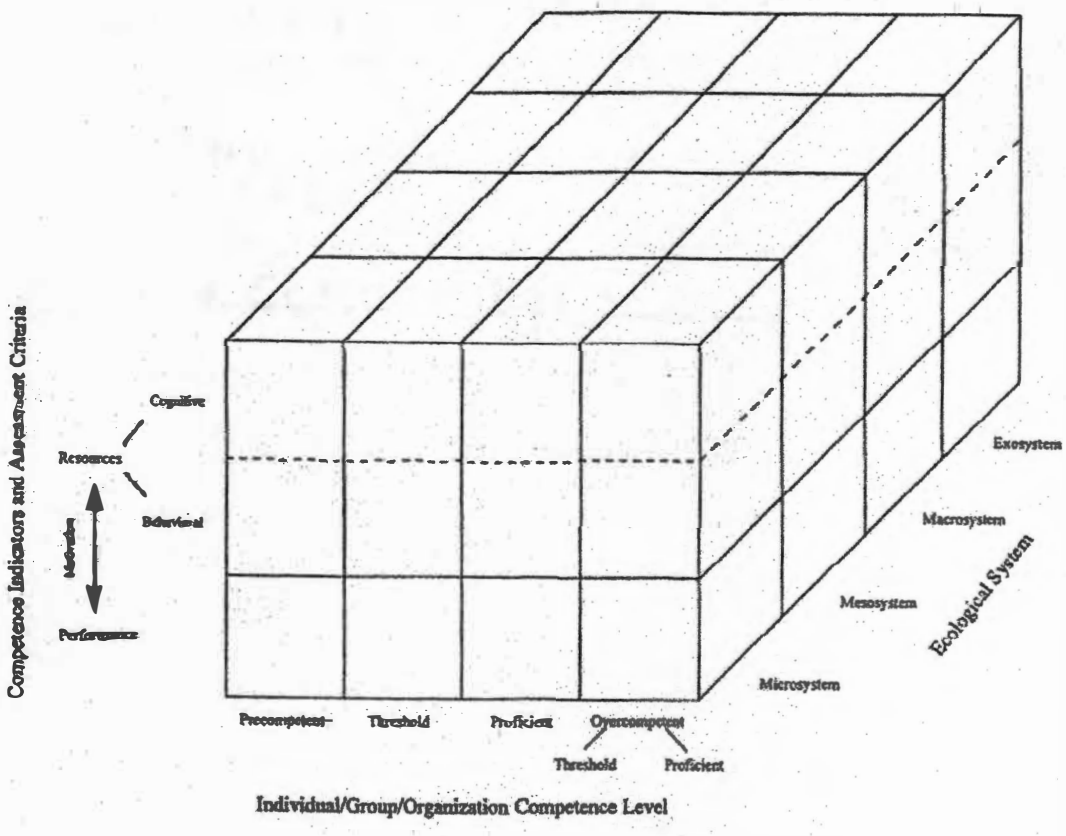


Figure A-1. Ecological Model of Communication Competence. This three dimensional model indicates communication competence can be conceptualized in three different dimensions: competence assessment criteria, competence levels, and ecological systems.

Table A-1.

Demographic Minimum and Maximum Counts.

Variable	Min	Max	Mean	Standard Deviation
Age	19	82	43.68	11.61
Years in workforce	1	50	22.48	11.11
Years in organization	0	45	8.67	8.58

Table A-2.

Demographic Frequencies.

Variable	Count	Cumulative Count	Percent	Cumulative Percent
		Frequency Distribution of Sex		
Missing	5	5	2.08	2.08
Male	102	107	42.50	44.58
Female	133	240	55.42	100.00
		Frequency Distribution of Education		
Missing	5	5	2.08	2.08
Less than H.S.	2	7	0.83	2.92
High School	48	55	20.00	22.92
Associate's Degree	27	82	11.25	34.17
Bachelor's Degree	94	176	39.17	73.33
Master's Degree	59	235	24.58	97.92
Doctoral Degree	5	240	2.08	100.00

Table A-2.

Continued.

Variable	Count	Cumulative Count	Percent	Cumulative Percent
Married	184	191	76.67	79.58
Not Married	49	240	20.42	100.00
Frequency Distribution of Race				
Missing	7	7	2.92	2.92
African-American	8	15	3.33	6.25
Asian	5	20	2.08	8.33
Hispanic	3	23	1.25	9.58
White	210	233	87.50	97.08
Other	7	240	2.92	100.00
Frequency Distribution of Work Classification				
Missing	15	15	6.25	6.25
Part-time	24	39	10.00	16.25
Full-time	201	240	83.75	100.00

Table A-2.

Continued.

Variable	Count	Cumulative Count	Percent	Cumulative Percent
Frequency Distribution of Organization Classification				
Missing	14	14	5.83	5.83
For-profit	115	129	47.92	53.75
Non-profit	111	240	46.25	100.00
Frequency Distribution of Position Classification				
Missing	17	17	7.08	7.08
Manager	100	117	41.67	48.75
Non-manager	123	240	51.25	100.00
Frequency Distribution of Age (in years)				
Missing	9	9	3.75	3.75
0 To 20	1	10	0.42	4.17
20 To 40	95	105	39.58	43.75
40 To 60	118	223	49.17	92.92
60 To 80	16	239	6.67	99.58

Table A-2.

Continued.

Variable	Count	Cumulative Count	Percent	Cumulative Percent
80 To 100	1	240	0.42	100.00
Frequency Distribution of Years in Workforce				
Missing	22	22	9.17	9.17
0 To 10	43	65	17.92	27.08
10 To 20	49	114	20.42	47.50
20 To 30	74	188	30.83	78.33
30 To 40	44	232	18.33	96.67
40 To 50	8	240	3.33	100.00
Frequency Distribution of Years at Current Organization				
Missing	21	21	8.75	8.75
Up To 0	3	24	1.25	10.00
0 To 10	150	174	62.50	72.50
10 To 20	40	214	16.67	89.17
20 To 30	20	234	8.33	97.50

Table A-2.

Continued.

Variable	Count	Cumulative Count	Percent	Cumulative Percent
30 To 40	4	238	1.67	99.17
40 To 50	2	240	0.83	100.00

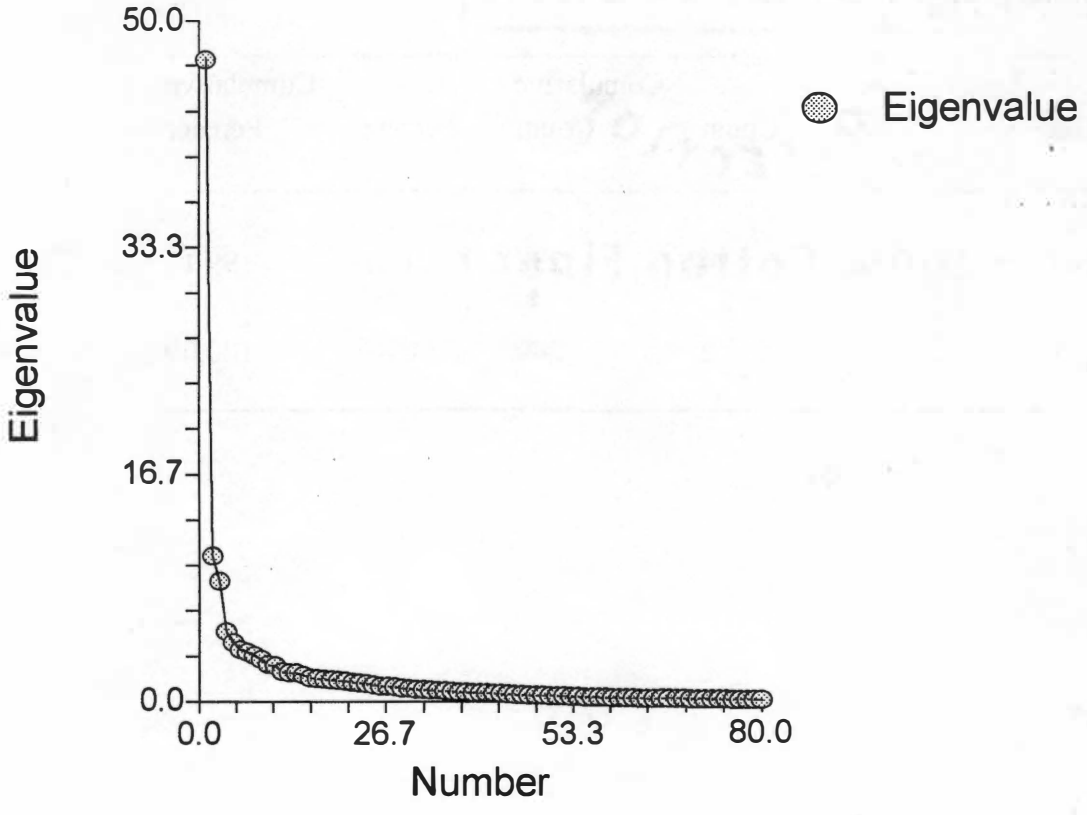


Figure A-2. Principal Components Analysis Scatter Plot of Item Eigenvalues by Number of Variables (Pre-test). Seven to eight principal components were chosen as after that number, the item Eigenvalues level off, and are probably measuring random noise.

Table A-3.

Pre-test Factor Loadings on Micro-level Communication Competence Section.

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
MIC35	-0.38	-0.18	-0.62	-0.12	0.20
MIC36	-0.46	-0.24	-0.63	-0.04	0.14
MIC37	-0.57	-0.30	-0.42	-0.21	0.08
MIC38	-0.15	-0.60	-0.05	-0.12	0.12
MIC39	-0.57	-0.23	-0.43	-0.13	0.10
MIC40	-0.41	-0.25	-0.68	-0.04	0.20
MIC41	-0.64	-0.29	-0.38	-0.04	0.28
MIC49	-0.52	-0.21	-0.54	-0.16	0.01
MIC42	-0.20	-0.73	-0.18	-0.04	0.05
MIC43	-0.75	-0.30	-0.33	-0.12	0.18
MIC44	-0.29	-0.02	-0.09	-0.11	0.60
MIC45	-0.33	-0.81	-0.18	-0.10	-0.10
MIC46	-0.55	-0.17	-0.48	-0.09	0.27
MIC47	-0.63	-0.23	-0.50	-0.08	0.17

Table A-3.

Continued.

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
MIC48	-0.66	-0.28	-0.49	-0.11	0.18
MIC50	-0.24	-0.49	0.06	0.28	0.28
MIC51	-0.71	-0.21	-0.25	-0.10	0.05
MIC52	-0.26	-0.23	-0.70	-0.27	0.19
MIC53	-0.37	-0.23	-0.31	-0.59	0.25
MIC54	-0.56	-0.24	-0.53	-0.30	0.09
MIC55	-0.71	-0.28	-0.38	-0.32	0.05
MIC56	-0.65	-0.24	-0.38	-0.12	0.17
MIC57	-0.66	-0.24	-0.52	-0.01	0.20
MIC58	-0.74	-0.23	-0.41	-0.06	0.21
MIC59	0.13	0.77	0.20	-0.01	-0.03
MIC60	-0.61	-0.25	-0.39	-0.26	0.18
MIC61	-0.63	-0.14	-0.44	-0.18	0.23
MIC62	-0.31	-0.09	-0.67	-0.15	-0.01

Table A-3.

Continued.

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor5
MIC63	-0.64	-0.27	-0.45	-0.11	0.16
MIC64	-0.49	-0.22	-0.61	-0.17	0.18
MIC65	-0.38	-0.09	-0.58	0.04	-0.10
MIC66	-0.73	-0.21	-0.27	-0.23	0.21

Table A-4.

Pre-test Micro-level Communication Competence Section Factor Items.

Factor 1-Affliation/support

Item 7. The leader is a good listener.

Item 9. The leader is easy to talk to.

Item 18. The leader likes to be close and personal with people.

Item 22. The leader is supportive of others.

Item 23. The leader can easily put him/herself in another person's shoes.

Item 27. The leader is a likeable person.

Item 33. The leader is sensitive to others' needs of the moment.

Factor 2-Behavioral flexibility

Item 8. The leader's personal relations are cold and distant.

Item 12. The leader ignores other people's feelings.

Item 26. The leader doesn't follow the conversation very well.

Factor 3-Social relaxation

Item 1. The leader finds it easy to get along with others.

Item 19. The leader generally knows what type of behavior is appropriate in any given situation.

Item 29. The leader is not afraid to speak with people in authority.

Table A-5.

Pre-test Factor Loadings on Macro-level Communication Competence Section.

Variable	Factor 1	Factor 2	Factor 3	Factor 4
MAC67	-0.29	0.07	-0.73	0.14
MAC68	-0.33	0.08	-0.72	0.22
MAC69	-0.26	0.43	-0.08	-0.07
MAC70	-0.01	-0.35	0.00	0.07
MAC71	-0.61	0.11	-0.16	0.30
MAC72	-0.67	0.04	-0.26	0.10
MAC73	-0.68	-0.02	-0.14	0.20
MAC74	0.10	0.50	0.06	0.01
MAC75	-0.48	0.04	-0.13	0.02
MAC76	-0.07	0.64	-0.14	0.24
MAC77	-0.47	0.03	-0.30	0.55
MAC78	-0.07	0.69	-0.08	0.50
MAC79	-0.36	0.02	-0.35	0.54
MAC80	-0.21	0.52	-0.18	0.38

Table A-6.

Pre-test Macro-level Communication Competence Section Factor Items.

Factor 1-Goal orientation
Item 5. Upward communication (such as email, suggestion boxes, 'open door' policies, and employee attitude surveys) is a key communication resource for the organization.
Item 6. Organization-wide communication (such as memos and company meetings) emphasizes the organization's mission and goals.
Item 7. Organization-wide communication (such as memos and company meetings) encourages people to internalize decisions in line with the organization's objectives.
Factor 2-Trust
Item 10. Employees of the organization do not use newly acquired communication skills in the best interest of the organization.
Item 12. Information available in the organization does not include the why's of the information nor does it include the implications of the information
Factor 3-Hierarchy
Item 1. The chain of command/ hierarchy in the organization is well defined.
Item 2. Employees in the organization know the correct method for communicating to the organization as a whole (organization-wide communication).

Table A-7.

Pre-test Factor Loadings on Micro-level Ethics Section.

Variable	Factor 1	Factor 2	Factor 3	Factor 4
MIE01	-0.66	0.34	-0.13	0.05
MIE02	-0.86	0.21	-0.15	0.14
MIE03	-0.84	0.21	-0.17	0.18
MIE04	-0.51	0.62	-0.21	0.10
MIE05	-0.73	0.34	-0.14	0.32
MIE06	-0.29	0.00	-0.61	0.21
MIE07	-0.23	0.83	-0.11	0.24
MIE08	-0.30	0.45	-0.22	0.61
MIE09	-0.63	0.34	-0.18	0.49
MIE10	-0.30	0.67	-0.07	0.30
MIE11	-0.42	0.44	-0.10	0.64
MIE12	-0.76	0.22	-0.15	0.37
MIE13	-0.73	0.23	-0.20	0.36
MIE14	-0.06	0.15	-0.63	0.01
MIE15	-0.65	0.36	-0.20	0.37

Table A-8.

Pre-test Micro-level Ethics Section Factor Items.

Factor 1-Ethical representation

Item 1. The leader encourages people to take full responsibility for their actions.

Item 2. The leader represents high ethical standards.

Item 3. Ethical behavior is the norm for the leader.

Item 5. The leader regularly shows that he or she really cares about ethics.

Item 9. The leader guides decision making in an ethical direction.

Item 12. The leader is a model of ethical behavior.

Item 13. The leader accepts organizational rules and procedures regarding ethical behavior.

Item 15. The leader influences ethical behavior in employees.

Factor 2-Unethical punishment

Item 7. Unethical behavior is punished by the leader.

Item 10. The leader disciplines unethical behavior when it occurs.

Factor 3-Ethical flexibility

Item 6. Unethical behavior is commonplace for the leader.

Item 14. Employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards from the leader.

Table A-9.

Pre-test Factor Loadings on Macro-level Ethics Section.

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
MAE16	-0.48	-0.17	-0.09	-0.05	0.20
MAE17	-0.50	-0.13	-0.11	-0.16	0.25
MAE18	-0.17	-0.30	-0.16	-0.66	0.04
MAE19	-0.16	-0.10	-0.59	-0.07	0.20
MAE20	-0.61	-0.07	-0.36	-0.36	0.15
MAE21	-0.30	-0.10	-0.40	-0.09	0.63
MAE22	-0.52	-0.13	-0.11	-0.30	0.38
MAE30	-0.65	-0.13	-0.04	-0.26	0.27
MAE23	-0.26	-0.29	0.03	-0.83	0.14
MAE24	-0.44	-0.05	-0.23	-0.06	0.65
MAE25	-0.74	-0.10	-0.23	-0.03	0.32
MAE26	-0.64	-0.18	-0.06	-0.23	0.37
MAE27	-0.64	-0.10	-0.12	-0.23	0.16
MAE28	-0.55	-0.10	-0.07	-0.15	0.62
MAE29	-0.71	-0.20	-0.18	-0.09	0.37

Table A-9.

Continued.

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
MAE31	-0.72	-0.04	-0.25	-0.32	0.05
MAE32	-0.09	-0.75	-0.06	-0.15	0.01
MAE33	-0.10	-0.65	-0.10	-0.32	0.14
MAE34	-0.63	0.00	0.00	-0.10	0.25

Table A-10.

Pre-test Macro-level Ethics Section Factor Items.

Factor 1-Ethical representation
Item 5. Ethical behavior is the norm for the organization.
Item 15. Top managers of the organization are models of ethical behavior.
Item 10. People of integrity are rewarded in the organization.
Item 11. The top managers of the organization guide decision making in an ethical direction.
Item 12. Other people in the organization are highly ethical.
Item 14. Ethical behavior is rewarded in the organization.
Item 16. The average person in the organization accepts organizational rules and procedures regarding ethical behavior.
Item 19. The ethical behavior in the organization is influenced by management.
Factor 2-Ethical commitment
Item 17. Organizational rules and procedures regarding ethical behavior serve only to maintain the organization's public image.
Item 18. In the organization, employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards
Factor 3-Ethical flexibility
Item 3. In the organization, people commonly engage in unethical behavior.
Item 8. In the organization, unethical behavior is commonplace.

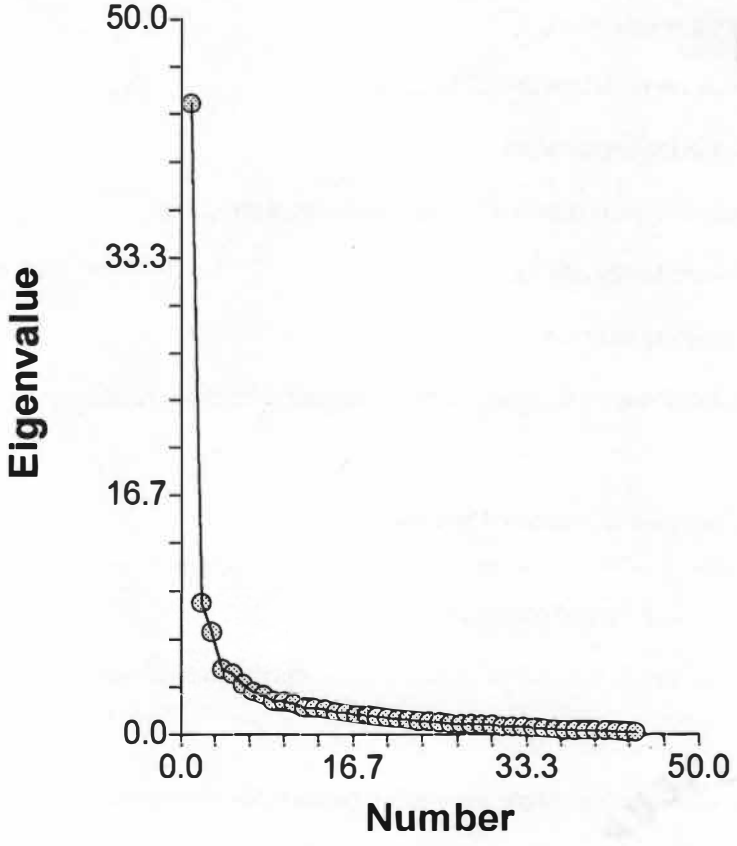


Figure A-3. Principal Components Analysis Scatter Plot of Item Eigenvalues by Number of Variables (Revised Instrument). Three to four principal components were chosen as after that number, the item Eigenvalues level off, and are probably measuring random noise.

Table A-11.

Factor Loadings on Revised Micro-level Communication Competence Section.

Variable	Factor1	Factor2	Factor3	Factor4
MIC35	-0.61	-0.37	0.24	-0.30
MIC41	-0.83	-0.18	0.42	-0.20
MIC42	-0.27	-0.36	0.31	-0.67
MIC43	-0.52	-0.40	0.44	-0.35
MIC45	-0.36	-0.24	0.41	-0.41
MIC51	-0.20	-0.68	0.18	-0.22
MIC52	-0.37	-0.32	0.51	-0.20
MIC55	-0.38	-0.42	0.69	-0.19
MIC56	-0.44	-0.41	0.56	-0.15
MIC59	0.43	0.19	-0.41	0.36
MIC60	-0.28	-0.49	0.52	-0.33
MIC62	-0.18	-0.06	0.57	-0.24
MIC66	-0.35	-0.35	0.66	-0.24

Table A-12.

Revised Micro-level Communication Competence Section Factor Items.

Factor 1-Affliation/support
Item 19. The leader generally knows what type of behavior is appropriate in any given situation.
Item 22. The leader is supportive of others.
Item 23. The leader can easily put him/herself in another person's shoes.
Item 27. The leader is a likeable person.
Item 29. The leader is not afraid to speak with people in authority.
Item 33. The leader is sensitive to others' needs of the moment.
Factor 2-Behavioral flexibility
Item 8. The leader's personal relations are cold and distant.
Item 12. The leader ignores other people's feelings.
Factor 3-Social relaxation
Item 1. The leader finds it easy to get along with others.
Item 7. The leader is a good listener.
Item 9. The leader is easy to talk to.
Item 26. The leader doesn't follow the conversation very well.
Non-loading Items
Item 18. The leader likes to be close and personal with people.

Table A-13.

Factor Loadings on Revised Macro-level Communication Competence Section.

Variables	Factor1	Factor2	Factor3	Factor4
MAC67	-0.72	0.07	-0.37	-0.09
MAC68	-0.77	0.28	-0.19	-0.26
MAC71	-0.37	0.21	-0.35	-0.55
MAC72	-0.31	0.26	-0.72	-0.21
MAC73	-0.26	0.25	-0.73	-0.16
MAC76	-0.17	0.66	-0.28	-0.22
MAC78	-0.12	0.73	-0.14	-0.04

Table A-14.

Revised Macro-level Communication Competence Section Factor Items.

Factor 1-Goal orientation
Item 6. Organization-wide communication (such as memos and company meetings) emphasizes the organization's mission and goals.
Item 7. Organization-wide communication (such as memos and company meetings) encourages people to internalize decisions in line with the organization's objectives.
Factor 2-Trust
Item 10. Employees of the organization do not use newly acquired communication skills in the best interest of the organization.
Item 12. Information available in the organization does not include the why's of the information nor does it include the implications of the information
Factor 3-Hierarchy
Item 1. The chain of command/ hierarchy in the organization is well defined.
Item 2. Employees in the organization know the correct method for communicating to the organization as a whole (organization-wide communication).
Non-loading items
Item 5. Upward communication (such as email, suggestion boxes, 'open door' policies, and employee attitude surveys) is a key communication resource for the organization.

Table A-15.

Factor Loadings on Revised Micro-level Ethics Section.

Variable	Factor1	Factor2	Factor3	Factor4
MIE01	-0.39	0.23	-0.18	-0.61
MIE02	-0.65	0.18	-0.34	-0.58
MIE03	-0.67	0.10	-0.37	-0.56
MIE05	-0.56	0.24	-0.28	-0.41
MIE06	-0.45	0.00	-0.65	-0.19
MIE07	-0.08	0.68	-0.09	-0.11
MIE09	-0.75	0.32	-0.24	-0.24
MIE10	-0.35	0.74	-0.02	-0.09
MIE12	-0.78	0.31	-0.35	-0.26
MIE13	-0.66	0.24	-0.29	-0.29
MIE14	-0.19	0.35	-0.40	-0.23
MIE15x	-0.55	0.18	-0.14	-0.23

Table A-16.

Revised Micro-level Ethics Section Factor Items.

Factor 1-Ethical representation
Item 2. The leader represents high ethical standards.
Item 3. Ethical behavior is the norm for the leader.
Item 5. The leader regularly shows that he or she really cares about ethics.
Item 9. The leader guides decision making in an ethical direction.
Item 12. The leader is a model of ethical behavior.
Item 13. The leader accepts organizational rules and procedures regarding ethical behavior.
Item 15. The leader influences ethical behavior in employees.
Factor 2-Unethical punishment
Item 7. Unethical behavior is punished by the leader.
Item 10. The leader disciplines unethical behavior when it occurs.
Factor 3-Ethical flexibility
Item 6. Unethical behavior is commonplace for the leader.
Item 14. Employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards from the leader.
Non-loading items
Item 1. The leader encourages people to take full responsibility for their actions.

Table A-17.

Factor Loadings on Revised Macro-level Ethics Section.

Variable	Factor1	Factor2	Factor3	Factor4
MAE18	-0.79	-0.11	0.08	-0.32
MAE20	-0.44	-0.20	0.16	-0.11
MAE30	-0.42	-0.50	0.26	-0.54
MAE23	-0.72	-0.18	0.17	-0.36
MAE25	-0.21	-0.79	0.11	-0.16
MAE26	-0.30	-0.63	0.05	-0.52
MAE27	-0.32	-0.14	0.33	-0.46
MAE29	-0.23	-0.75	0.35	-0.20
MAE31	-0.27	-0.26	0.16	-0.46
MAE32	-0.48	-0.26	0.30	-0.04
MAE33	-0.48	-0.29	0.08	-0.22
MAE34	-0.16	-0.16	0.61	-0.17

Table A-18.

Revised Macro-level Ethics Section Factor Items.

Factor 1-Ethical representation
Item 10. People of integrity are rewarded in the organization.
Item 11. The top managers of the organization guide decision making in an ethical direction.
Item 14. Ethical behavior is rewarded in the organization.
Factor 2-Ethical commitment
Item 15. Top managers of the organization are models of ethical behavior.
Item 12. Other people in the organization are highly ethical.
Item 16. The average person in the organization accepts organizational rules and procedures regarding ethical behavior.
Factor 3-Ethical flexibility
Item 3. In the organization, people commonly engage in unethical behavior.
Item 5. Ethical behavior is the norm for the organization.
Item 8. In the organization, unethical behavior is commonplace.
Item 17. Organizational rules and procedures regarding ethical behavior serve only to maintain the organization's public image.
Item 18. In the organization, employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards.
Non-loading items
Item 19. The ethical behavior in the organization is influenced by management.

Table A-19.

Total Section Scores (Ranges).

Micro-level communication competence section: 12 questions; total section score ranges between 12 and 84
Micro-level ethics section: 11 questions; total section score ranges between 11 and 77
Macro-level communication competence section: six questions; total section score ranges between 6 and 42
Macro-level ethics section: 11 questions; total section score ranges between 11 and 77

Note. Low scores on the ranges assumes no missing values

Table A-20.

Total Factor Scores (Ranges).

Micro-level communication competence section
Affiliation/support factor: six questions; total factor score ranges between 6 and 42
Behavioral flexibility factor: two questions; total factor score ranges between 2 and 14
Social relaxation factor: four questions; total factor score ranges between 4 and 28
Micro-level ethics section
Ethical representation factor: seven questions; total factor score ranges between 7 and 49
Unethical punishment factor: two questions; total factor score ranges between 2 and 14
Ethical flexibility factor: two questions; total factor score ranges between 2 and 14
Macro-level communication competence section
Goal orientation factor: two questions; total factor score ranges between 2 and 14
Trust factor: two questions; total factor score ranges between 2 and 14
Hierarchy factor: two questions; total factor score ranges between 2 and 14
Macro-level ethics section
Ethical representation factor: three questions; total factor score ranges between 3 and 21
Ethical commitment factor: three questions; total factor score ranges between 3 and 21
Ethical flexibility factor: five questions; total factor score ranges between 5 and 35

Note. Low scores on the ranges assume no missing values.

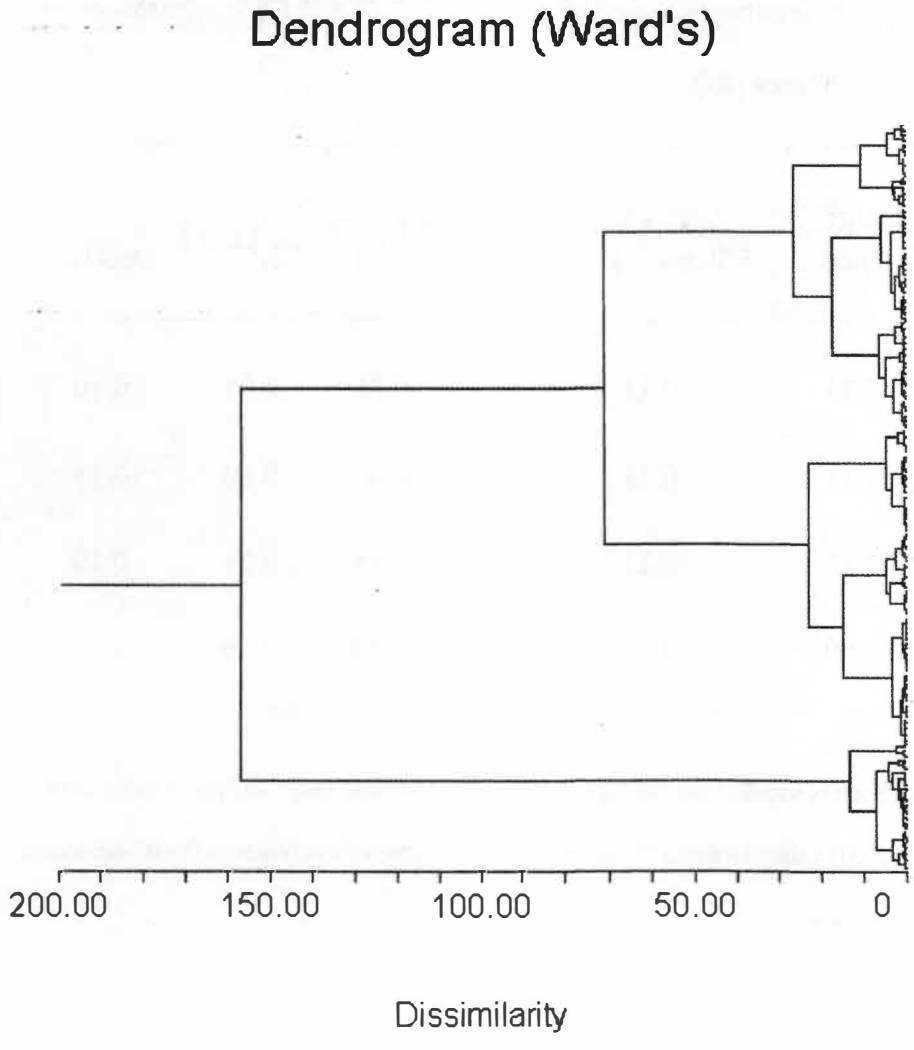


Figure A-4. Ward's Clustering Dendrogram for RQ1(a). This dendrogram indicates the data probably contains two to three clusters.

Table A-21.

Summary of Fuzzy Cluster Technique Using Micro-level Ethics and Communication Competence Total Factor Scores (RQ1(a)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	115.36	0.37	0.86	0.71	0.05	0.10
3	101.41	0.23	0.73	0.60	0.10	0.15
4	92.81	0.21	0.66	0.55	0.14	0.19
5	86.89	0.20	0.62	0.52	0.16	0.21

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-22.

Stepwise Variable Selection Summary for Micro-level Total Factor Scores (RQ1(a)).

Step	Variable Entered	Variable Removed	Partial R-Square	F Value	Pr > F
1	micsocial		0.55	295.63	<.0001
2	mierepresentation		0.20	59.78	<.0001
3	micaffiliation		0.08	20.62	<.0001
4	mieflexibility		0.04	8.87	0.00
5	miepunish		0.03	6.25	0.01
6	micbehavioral		0.02	4.48	0.04

Note. All six factors used were statistically significant, and thus, were left in the analysis.

Table A-23.

Cross-validation Summary of Micro-level Total Factor Scores (2 cluster solution) (RQ1(a)).

From cluster	1	2	Total
	Number of Observations and Percent Classified into Cluster		
1	158	4	162
	97.53%	2.47%	100%
2	3	75	78
	3.85%	96.15 %	100%
Total	161	79	240
	67.08%	32.92%	100%
Priors	0.50	0.50	

Note. 7 of 240 data-points were misclassified for a classification error rate of just under 3%. This indicates the two cluster solution had good predictive value.

Table A-24.

Cross-validation Summary of Micro-level Total Factor Scores (3 cluster solution) (RQ1(a)).

From cluster	1	2	3	Total
	Number of Observations and Percent Classified into Cluster			
1	68	5	2	75
	90.67%	6.67%	2.67%	100%
2	7	110	0	117
	5.98%	94.02%	0%	100%
3	2	0	46	48
	4.17%	0%	95.83%	100%
Total	77	115	48	240
	32.08%	47.92%	20%	100%
Priors	0.33	0.33	0.33	

Note. 16 of 240 data-points were misclassified for a classification error rate of just under 7%. This indicates the three cluster solution did not have as good of predictive value compared to the two cluster solution.

Table A-25.

Factor Means for Cluster 1 (The "High" Score Cluster) (RQ1(a)).

Factor	N	Mean	Std Dev	Minimum	Maximum
micaffiliation	162	36.81	4.00	6	42
micbehavioral	162	11.86	2.60	2	14
micsocial	162	24.63	2.93	4	28
mierepresentation	162	43.88	4.90	7	49
miepunish	162	10.10	2.79	2	14
mieflexibility	162	11.42	2.46	2	14

Note. micaffiliation = micro-level communication competence affiliation/support factor, micbehavioral = micro-level communication competence behavioral flexibility factor, micsocial = micro-level communication competence social relaxation factor, mierepresentation = micro-level ethics ethical representation factor, miepunish = micro-level ethics unethical punishment factor, and mieflexibility = micro-level ethics ethical flexibility factor.

Table A-26.

Factor Means for Cluster 2 (The "Low" Score Cluster) (RQ1(a)).

Variable	N	Mean	Std Dev	Minimum	Maximum
micaffiliation	78	24.76	6.87	6	42
micbehavioral	78	7.37	2.51	2	14
micsocial	78	15.67	5.13	4	28
mierepresentation	78	29.47	9.51	7	49
miepunish	78	7.17	2.93	2	14
mieflexibility	78	7.92	2.81	2	14

Note. micaffiliation = micro-level communication competence affiliation/support factor, micbehavioral = micro-level communication competence behavioral flexibility factor, micsocial = micro-level communication competence social relaxation factor, mierepresentation = micro-level ethics ethical representation factor, miepunish = micro-level ethics unethical punishment factor, and mieflexibility = micro-level ethics ethical flexibility factor.

Table A-27.

Factor Means for Clusters 1 and 2 ("High" and "Low") (RQ1(a)).

Variable	N	Low Cluster Mean	High Cluster Mean	Min.	Max.	T-Value
micaffiliation	162, 78	24.76	36.81	6	42	14.70
micbehavioral	162, 78	7.37	11.86	2	14	14.79
micsocial	162, 78	15.67	24.63	4	28	14.28
mierepresentation	162, 78	29.47	43.88	7	49	11.16
miepunish	162, 78	7.17	10.10	2	14	6.47
mieflexibility	162, 78	7.92	11.42	2	14	9.34

Note. micaffiliation = micro-level communication competence affiliation/support factor, micbehavioral = micro-level communication competence behavioral flexibility factor, micsocial = micro-level communication competence social relaxation factor, mierepresentation = micro-level ethics ethical representation factor, miepunish = micro-level ethics unethical punishment factor, and mieflexibility = micro-level ethics ethical flexibility factor.

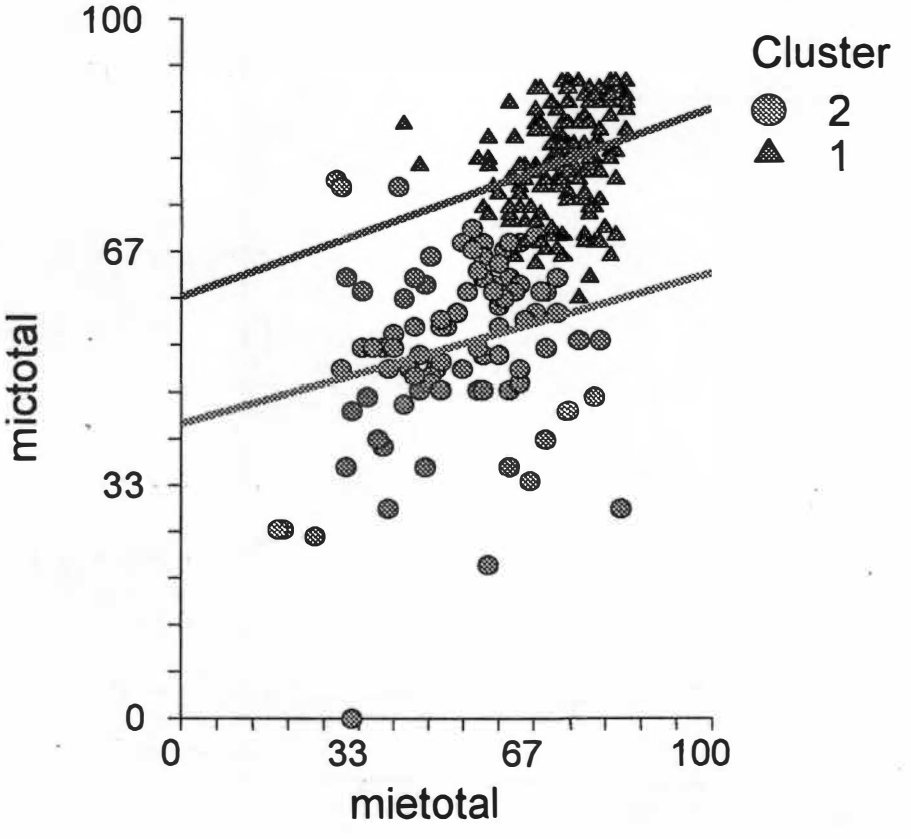


Figure A-5. Total Micro-level Communication Competence Score Plotted Against the Micro-level Ethics Score.

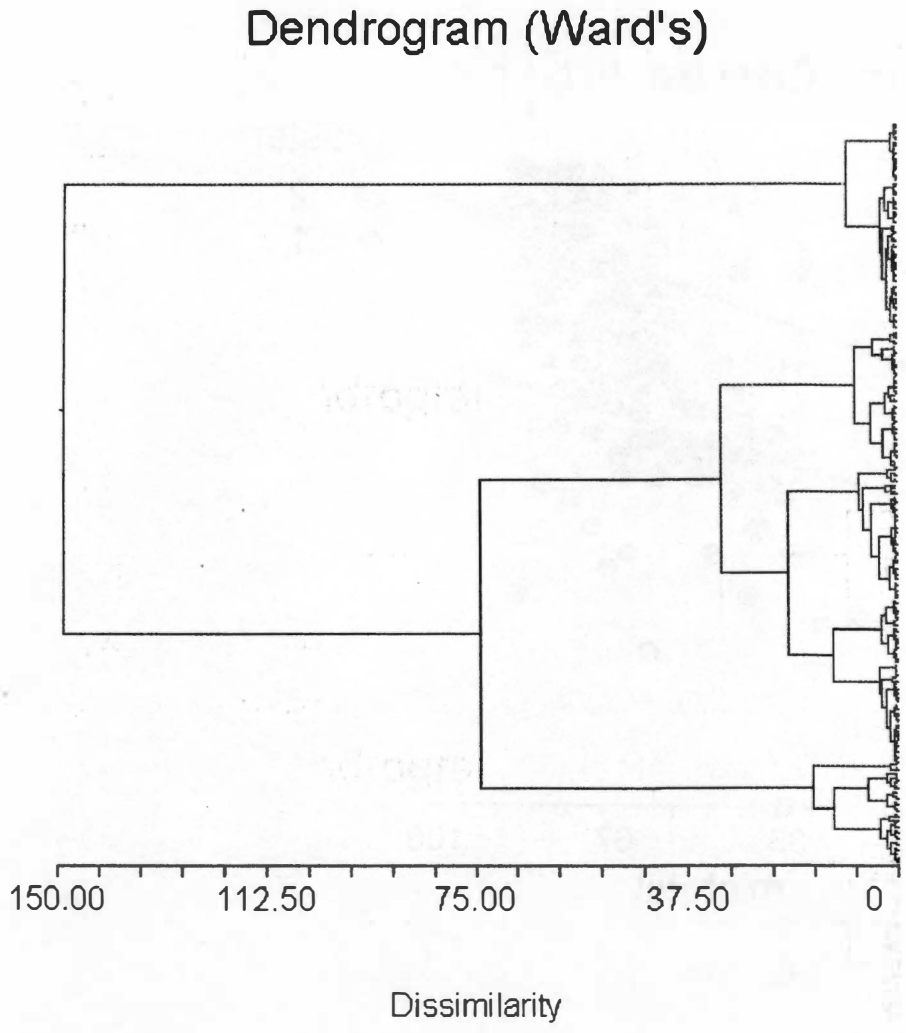


Figure A-6. Ward's Clustering Dendrogram for RQ1(b). This dendrogram indicates the data most likely contain two clusters.

Table A-28.

Summary of Fuzzy Cluster Technique Using Macro-level Ethics and Communication Competence Total Factor Scores (RQ1(b)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	117.89	0.32	0.85	0.69	0.05	0.10
3	103.39	0.24	0.73	0.59	0.10	0.16
4	95.06	0.19	0.63	0.51	0.17	0.22
5	89.39	0.16	0.55	0.43	0.22	0.27

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-29.

Stepwise Variable Selection Summary for Macro-level Total Factor Scores (RQ1(b)).

Step	Entered	Removed	Partial R-Square	F Value	Pr>F
1	maeflexibility		0.47	213.72	<.0001
2	macgoal		0.23	70.53	<.0001
3	maerepresentation		0.13	34.86	<.0001
4	mactrust		0.07	17.07	<.0001
5	machierarchy		0.03	6.19	0.01
6	maecommitment		0.01	3.40	0.07

Note. All six factors used were statistically significant, and thus, were left in the analysis.

Table A-30.

Cross-validation Summary of Macro-level Total Factor Scores (2 cluster solution) (RQ1(b)).

From Cluster	1	2	Total
	Number of Observations and Percent Classified into Cluster		
1	109	5	114
	95.61%	4.39%	100%
2	2	124	126
	1.59%	98.41%	100%
Total	111	129	240
	46.25%	53.75%	100%
Priors	0.5	0.5	

Note. 7 of 240 data-points were misclassified for a classification error rate of just under 3%. This indicates the two cluster solution had good predictive value.

Table A-31.

Cross-validation Summary of Macro-level Total Factor Scores (3 cluster solution) (RQ1(b)).

From cluster	1	2	3	Total
	Number of Observations and Percent Classified into Cluster			
1	90	0	5	95
	94.74%	0%	5.26%	100%
2	0	38	6	44
	0%	86.36%	13.64%	100%
3	4	2	95	101
	3.96%	1.98%	94.06%	100%
Total	94	40	106	240
	39.17%	16.67%	44.17%	100%
Priors	0.33	0.33	0.33	

Note. 17 of 240 data-points were misclassified for a classification error rate of just over 7%. This indicates the three cluster solution did not have as good of predictive value compared to the two cluster solution.

Table A-32.

Factor Means for Cluster 1 (The "High" Score Cluster) (RQ1(b)).

Factor	N	Mean	Std Dev	Minimum	Maximum
macgoal	114	12.01	1.57	2	14
mactrust	114	10.66	2.51	2	14
machierarchy	114	12.23	1.51	2	14
maerepresentation	114	18.25	2.37	3	21
maecommitment	114	17.98	2.15	3	21
maeflexibility	114	28.66	4.55	5	35

Note. macgoal = macro-level communication competence goal orientation factor; mactrust = macro-level communication competence trust factor; machierarchy = macro-level communication competence hierarchy factor; maerepresentation = macro-level ethics ethical representation factor; maecommitment = macro-level ethics ethical commitment factor; and maeflexibility = macro-level ethics ethical flexibility factor.

Table A-33.

Factor Means for Cluster 2 (The "Low" Score Cluster) (RQ1(b)).

Factor	N	Mean	Std Dev	Minimum	Maximum
macgoal	126	8.45	2.86	2	14
mactrust	126	7.06	2.62	2	14
machierarchy	126	9.21	3.17	2	14
maerepresentation	126	12.50	3.75	3	21
maecommitment	126	13.79	2.80	3	21
maeflexibility	126	19.62	4.98	5	35

Note. macgoal = macro-level communication competence goal orientation factor; mactrust = macro-level communication competence trust factor; machierarchy = macro-level communication competence hierarchy factor; maerepresentation = macro-level ethics ethical representation factor; maecommitment = macro-level ethics ethical commitment factor; and maeflexibility = macro-level ethics ethical flexibility factor.

Table A-34.

Factor Means for Clusters 1 and 2 ("High" and "Low") (RQ1(b)).

Variable	N	Low Cluster Mean	High Cluster Mean	Min.	Max.	T-Value
macgoal	114, 126	8.45	12.01	2	14	10.64
mactrust	114, 126	7.06	10.66	2	14	10.81
machierarchy	114, 126	9.21	12.23	2	14	8.59
maerepresentation	114, 126	12.50	18.25	3	21	13.96
maecommitment	114, 126	13.79	17.98	3	21	12.33
maeflexibility	114, 126	19.62	28.66	5	35	15.63

Note. macgoal = macro-level communication competence goal orientation factor; mactrust = macro-level communication competence trust factor; machierarchy = macro-level communication competence hierarchy factor; maerepresentation = macro-level ethics ethical representation factor; maecommitment = macro-level ethics ethical commitment factor; and maeflexibility = macro-level ethics ethical flexibility factor..

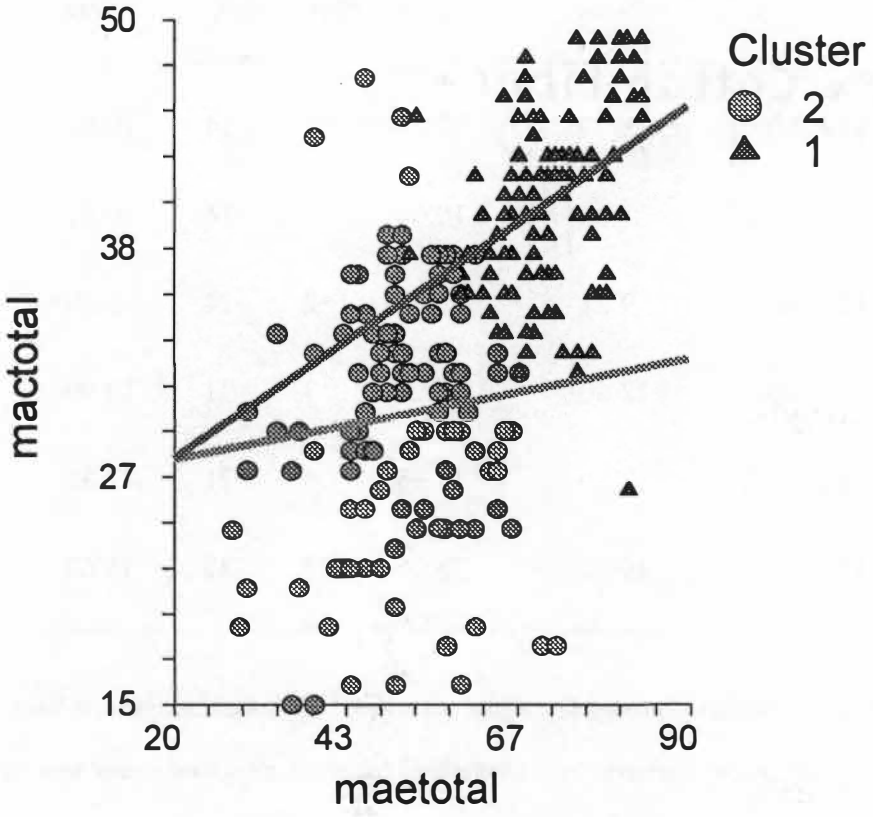


Figure A-7. Scatter-plot of the Total Macro-level Communication Competence Score by the Macro-level Ethics Score for RQ1(b). The clusters indicate a definite positive relationship.

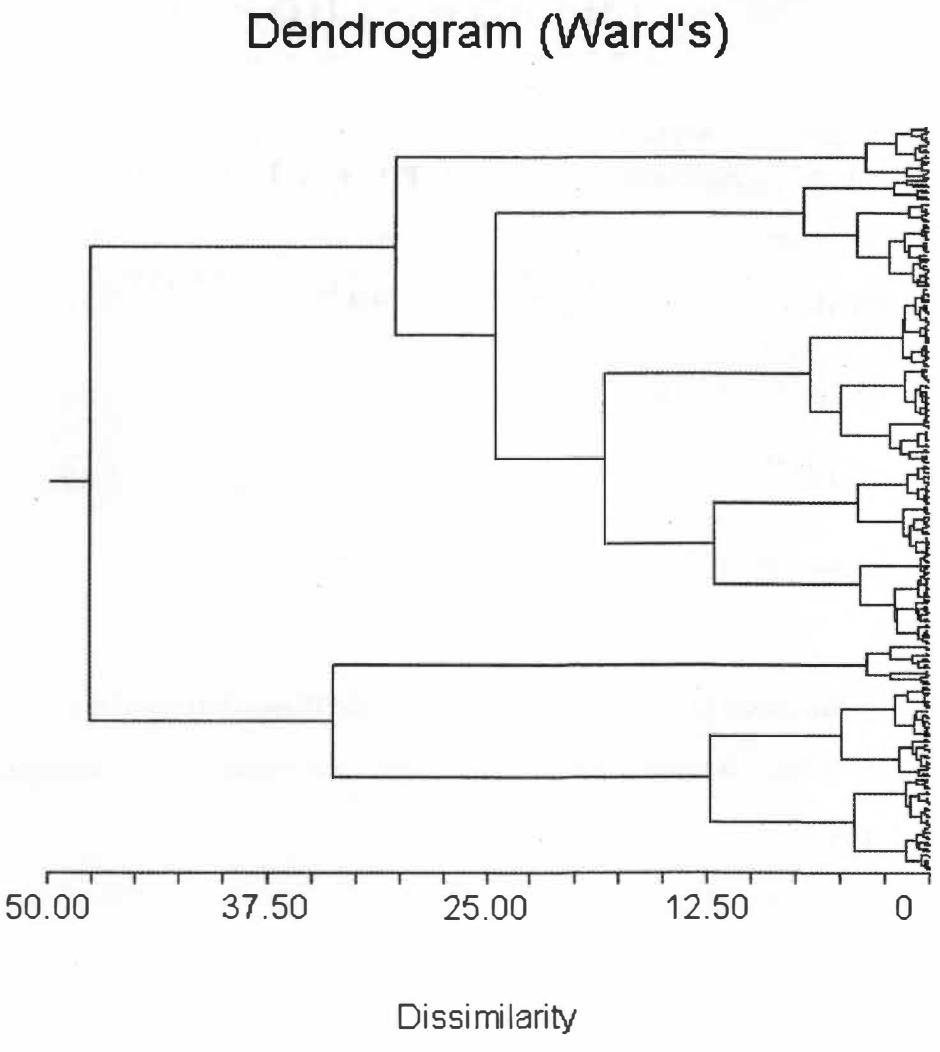


Figure A-8. Ward's Clustering Dendrogram for RQ2(a). This dendrogram indicates the data most likely contain two to three clusters.

Table A-35.

Summary of Fuzzy Cluster Technique Using Total Micro-level Ethics Score and Demographic Information (RQ2(a)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	106.41	0.20	0.69	.038	0.13	0.27
3	95.76	0.17	0.55	0.32	0.21	0.32
4	88.40	0.17	0.52	0.36	0.22	0.30
5	82.84	0.18	0.50	0.37	0.22	0.28

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-36.

Non-significant Variables from Stepwise Variable Selection on Demographic Information and Micro-level Ethics Score (RQ2(a)).

Variable	R-Square	F Value	Pr>F	Tolerances
mietotal	0.00	0.42	0.52	0.66
age	0.00	0.01	0.92	0.21
educ	0.00	0.29	0.59	0.64
race	0.00	0.02	0.89	0.66
work	0.00	0.43	0.51	0.66

Note. mietotal = total micro-level ethics score, age = age in years, educ = education level, race= race, and work = full or part-time classification. The significance value (Pr>F) of each of these variables are all above the significance level cutoff of .05. This is an indication these variables don't relate to the rest of the data.

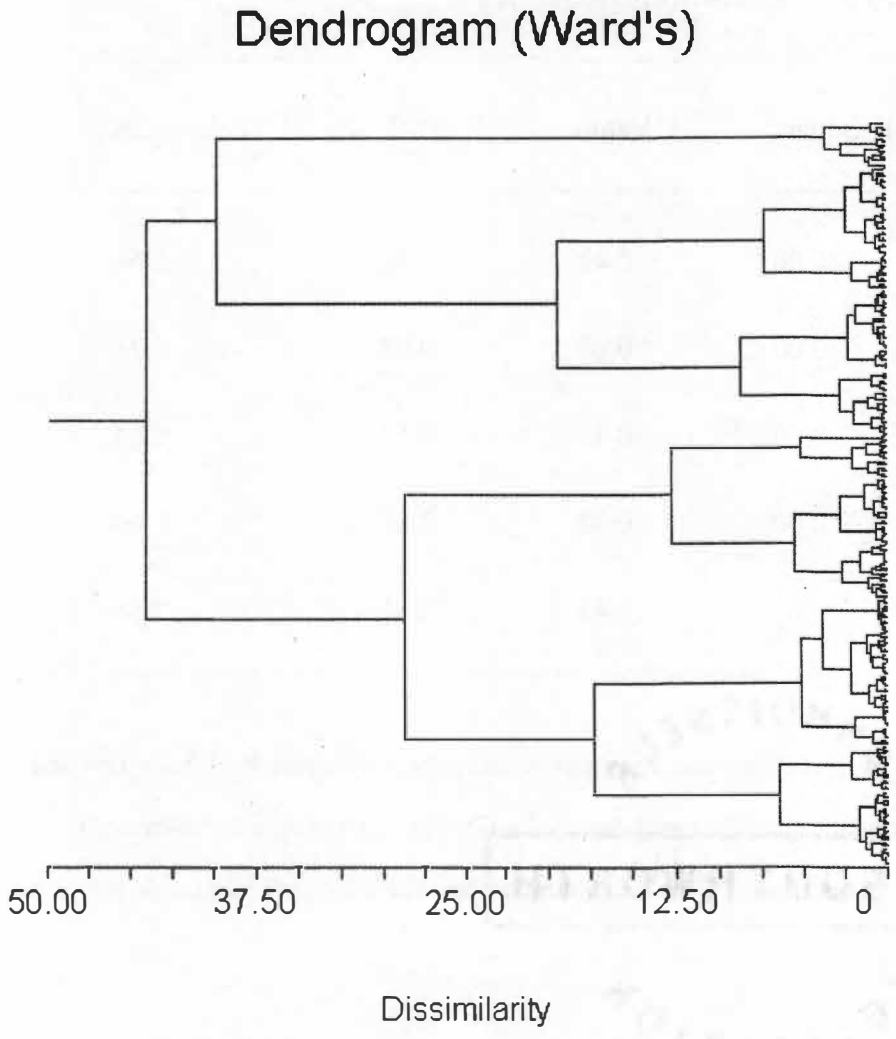


Figure A-9. Ward's Clustering Dendrogram for RQ2(b). This dendrogram indicates the data most likely contain three to four clusters.

Table A-37.

Summary of Fuzzy Cluster Technique Using Demographic Information and Total Macro-level Ethics Score (RQ2(b)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	105.71	0.20	0.69	0.37	0.13	0.26
3	95.20	0.17	0.54	0.31	0.22	0.33
4	88.12	0.15	0.47	0.29	0.28	0.37
5	83.10	0.14	0.41	0.27	0.32	0.40

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-38.

Stepwise Variable Selection Summary for Demographic Information and Total Macro-level Ethics Score (RQ2(b)).

Step	Entered	Removed	Partial R-Square	F Value	Pr > F
1	workyrs		0.56	253.35	<.0001
2	position		0.12	26.14	<.0001
3	marital		0.04	9.27	0.00
4	maetotal		0.05	9.82	0.00
5	sex		0.03	6.44	0.01
6	orgyears		0.02	4.70	0.03
7	age		0.02	3.15	0.08

Note. These seven factors used were statistically significant, and thus, were left in the analysis. Workyrs = number of year in the workforce; position = manager/non-manager classification; marital = married/not married; maetotal = total macro-level ethics score; orgyears = number of years in the present organization.

Table A-39.

Cross-validation Summary of Demographic Information and Total Macro-level Score (2 cluster solution) (RQ2(b)).

From Cluster	1	2	Total
Number of Observations and Percent Classified into Cluster			
1	103	4	107
	96.26%	3.74%	100%
2	7	87	94
	7.45%	92.55%	100%
Total	114	91	205
	55.61%	44.39%	100%
Priors	0.5	0.5	

Note. 11 of 205 data-points were misclassified for a classification error rate of just above 5%. This indicates the two cluster solution had good predictive value.

Table A-40.

Cross-validation Summary of Demographic Information and Total Macro-level Ethics Scores (3 cluster solution) (RQ2(b)).

From cluster	1	2	3	Total
	Number of Observations and Percent Classified into Cluster			
1	62	3	0	65
	95.38%	4.62%	0%	100%
2	2	65	1	68
	2.94%	95.59%	1.47%	100%
3	2	5	61	68
	2.94%	7.35%	89.71%	100%
Total	68	75	62	205
	33.17%	36.59%	30.24%	100%
Priors	0.33	0.33	0.33	

Note. 13 of 205 data-points were misclassified for a classification error rate of just over 6%. This indicates the three cluster solution did not have as good of predictive value compared to the two cluster solution.

Table A-41.

Item Means for Cluster 1 ("high experience" cluster) (RQ2(b)).

Factor	N	Mean	Std Dev	Minimum	Maximum
maetotal	98	63.65	12.61	28	84
sex	98	1.40	0.49	1	2
age	98	51.93	8.44	38	82
marital	98	1.09	0.29	1	2
workyrs	98	30.90	6.76	17	50
orgyears	98	13.82	9.92	1	45
position	98	1.35	0.48	1	2

Note. maetotal = total macro-level ethics score; sex (1=male, 2=female); marital (1=married, 2=not married); workyrs = number of years in the workforce; orgyears = number of years in present organization; position (1=manager, 2=non-manager).

Table A-42.

Item Means for Cluster 2 ("low experience" cluster) (RQ2(b)).

Factor	N	Mean	Std Dev	Minimum	Maximum
maetotal	107	58.66	13.10	30	84
sex	107	1.69	0.46	1	2
age	107	35.97	8.56	19	59
marital	107	1.36	0.48	1	2
workyrs	107	15.12	8.65	1	40
orgyears	107	4.31	3.59	0	18
position	107	1.70	0.46	1	2

Note. maetotal = total macro-level ethics score; sex (1=male, 2=female); marital (1=married, 2=not married); workyrs = number of years in the workforce; orgyears = number of years in present organization; position (1=manager, 2=non-manager).

Table A-43.

Item Means for Clusters 1 and 2 ("Low Experience" and "High Experience" cluster) (RQ2(b)).

Variable	N	Low Cluster Mean	High Cluster Mean	Min.	Max.	T-Value
maetotal	107, 98	58.66	63.65	30	84	-3.62
sex	107, 98	1.69	1.40	1	2	3.75
age	107, 98	35.97	51.93	19	59	-14.32
marital	107, 98	1.36	1.09	1	2	3.88
workyrs	107, 98	15.12	30.90	1	40	-14.70
orgyears	107, 98	4.31	13.82	0	18	-9.24
Position	107, 98	1.70	1.35	1	2	5.51

Note. maetotal = total macro-level ethics score; sex (1=male, 2=female); marital (1=married, 2=not married); workyrs = number of years in the workforce; orgyears = number of years in present organization; position (1=manager, 2=non-manager).

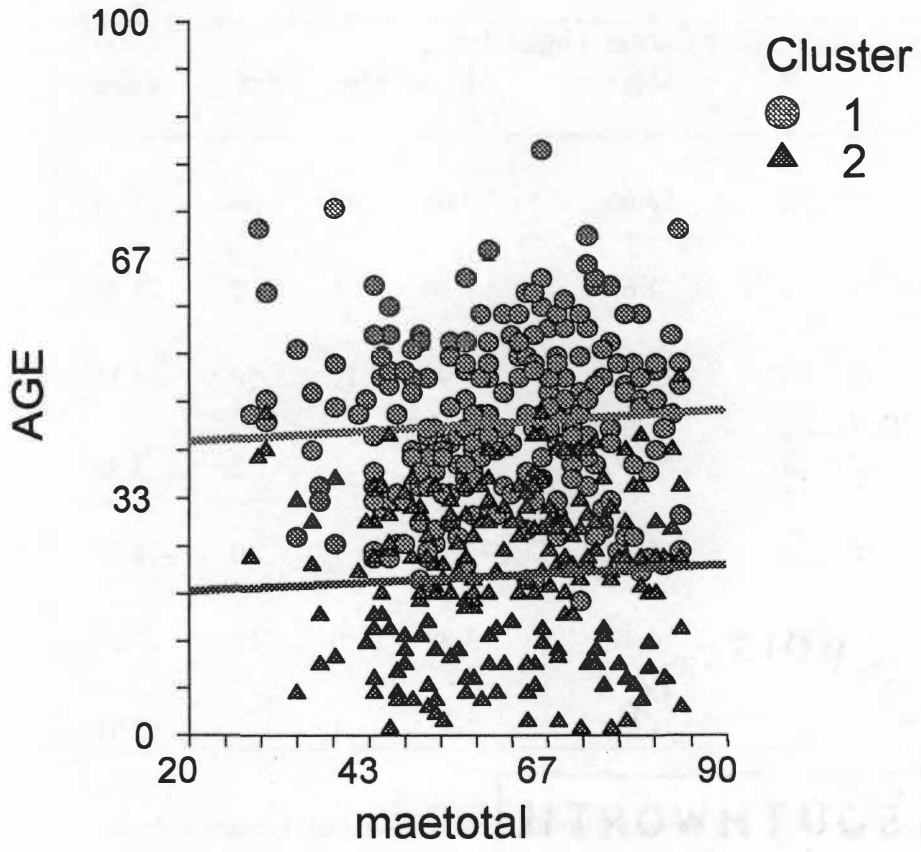


Figure A-10. Scatter-plot of the Total Macro-level Ethics Score by Age and Number of Years in the Workforce for RQ2(b). Regression lines are showing number of years in the workforce combined with age.

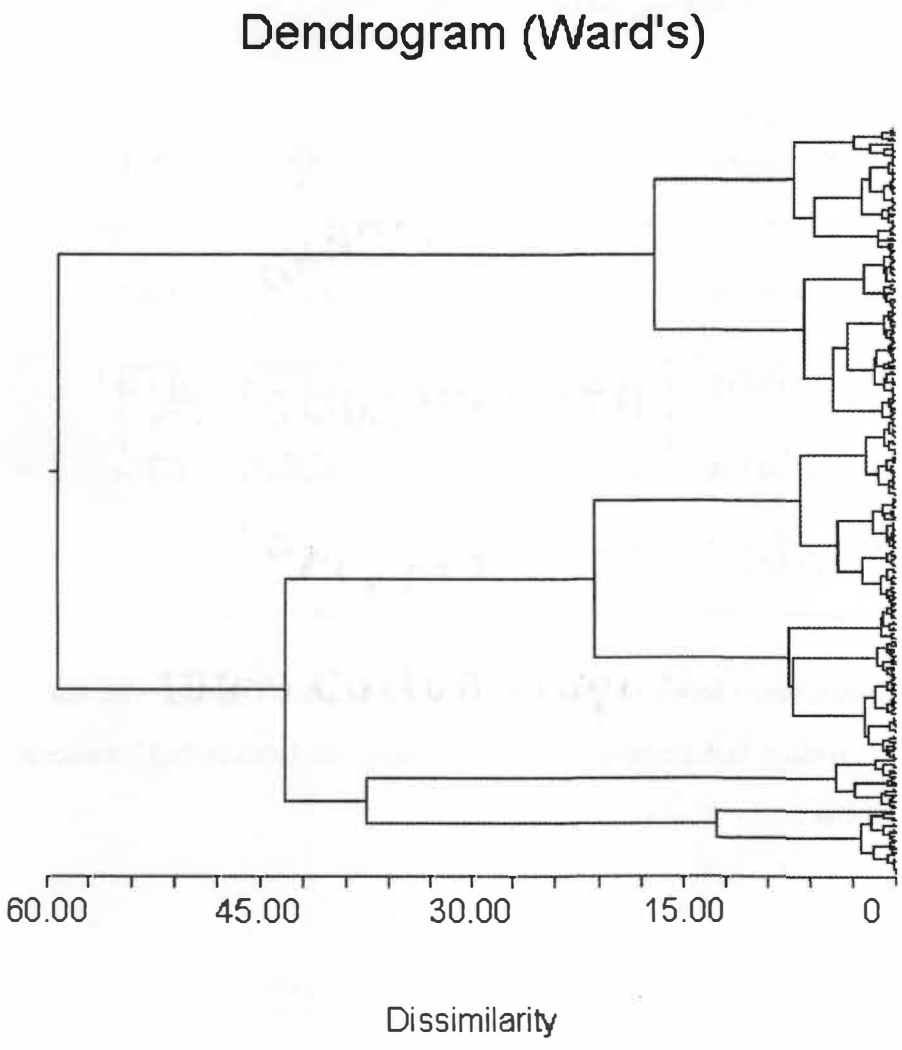


Figure A-11. Ward's Clustering Dendrogram for RQ3(a). This dendrogram indicates the data most likely contain two to three clusters.

Table A-44.

Summary of Fuzzy Cluster Technique Using Demographic Information and Total Micro-level Communication Competence Score (RQ3(a)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	108.141	0.19688	0.6882	0.3763	0.1306	0.2612
3	97.3407	0.16418	0.544	0.3161	0.2159	0.3239
4	89.9563	0.14754	0.4947	0.3263	0.2437	0.3249
5	84.3597	0.16183	0.4804	0.3505	0.2374	0.2968

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-45.

Non-significant Variables from Stepwise Variable Selection on Demographic Information and Micro-level Communication Competence Score (RQ3(a)).

Variable	R-Square	F Value	Pr>F	Tolerances
mictotal	0.01	1.81	0.18	0.68
age	0.00	0.57	0.45	0.21
educ	0.00	0.49	0.48	0.66
race	0.00	0.61	0.44	0.68
work	0.00	0.00	0.98	0.68
org	0.00	0.88	0.35	0.66

Note. mictotal = total micro-level communication competence score; age = age in years; educ = education level; race= race; work = full or part-time classification; org = for-profit or non-profit. The significance value (Pr>F) of each of these variables are all above the significance level cutoff of .05. This is an indication these variables do not relate to the rest of the data.

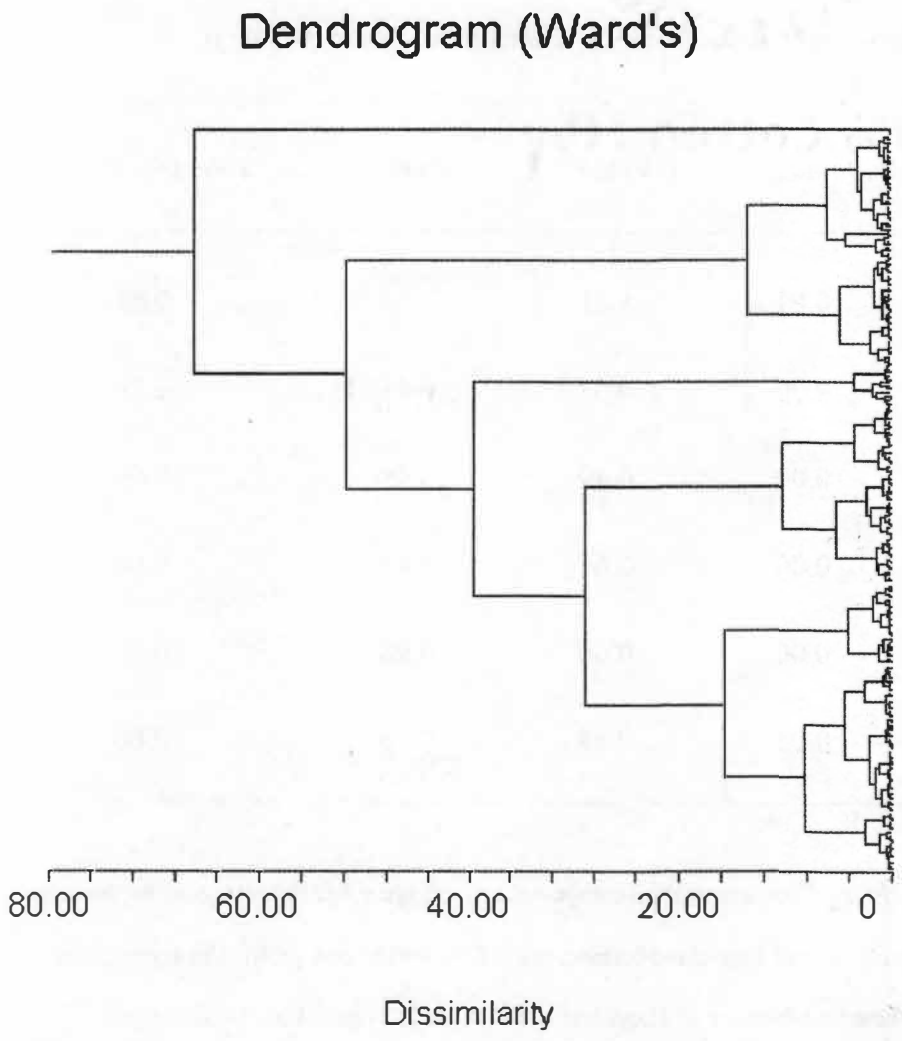


Figure A-12. Ward's Clustering Dendrogram for RQ3(b). This dendrogram indicates the data most likely to three clusters.

Table A-46.

Summary of Fuzzy Cluster Technique Using Demographic Information and Total Macro-level Communication Competence Score (RQ3(b)).

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	109.333	0.19816	0.6898	0.3795	0.1329	0.2658
3	98.4684	0.17271	0.5425	0.3137	0.2223	0.3334
4	91.3611	0.14653	0.4719	0.2959	0.2646	0.3528
5	85.7402	0.15193	0.4645	0.3306	0.248	0.31

Note. The best number of clusters should have the highest avg. silhouette and Dunn's (Fc(U)) value, and the lowest Kaufmann's (Dc(U)) value. In this case, the two cluster solution was chosen as "best" number of clusters, according to this criteria.

Table A-47.

Non-significant Variables from Stepwise Variable Selection on Demographic Information and Macro-level Communication Competence Score (RQ3(b)).

Variable	R-Square	F Value	Pr>F	Tolerances
mactotal	0.01	1.50	0.22	0.66
age	0.00	0.01	0.94	0.21
educ	0.00	0.01	0.90	0.64
race	0.00	0.00	0.96	0.66
work	0.00	0.50	0.48	0.66

Note. mactotal = total macro-level communication competence score; age = age in years; educ = education level; race= race; work = full or part-time classification. The significance value (Pr>F) of each of these variables were all above the significance level cutoff of .05. This is an indication these variables do not relate to the rest of the data.

Table A-48.

Descriptor counts from Research Question 4(a); Descriptions of Leaders.

Rank	Descriptor	# of Occurrences	Percentage of total descriptors
1.	good listener	14	9.0%
2.	good communicator	11	7.1%
3.	honest	10	6.4%
4.	caring	8	5.1%
	knowledgeable	8	5.1%
6.	organized	7	4.5%
	strong	7	4.5%
	trustworthy	7	4.5%
9.	confident	6	3.8%
	open	6	3.8%

Note. Total number of descriptors = 156.

Table A-49.

Descriptor counts from Research Question 4(b); Descriptions of Communicatively Competent Leaders.

Rank	Descriptor	# of Occurrences	Percentage of total descriptors
1.	good listener	30	27.8%
2.	open	10	9.3%
3.	honest	8	7.4%
4.	caring	6	5.6%
5.	friendly	5	4.6%
6.	approachable	4	3.7%
	competent	4	3.7%
	decisive	4	3.7%
	energetic	4	3.7%
10.	empathetic	3	2.8%

Note. Total number of descriptors = 108.

Table A-50.

Descriptor counts from Research Question 4(c); Descriptions of Ethical Leaders.

Rank	Descriptor	# of Occurrences	Percentage of total descriptors
1.	honest	8	8.1%
2.	friendly	6	6.1%
3.	good listener	5	5.1%
	open	5	5.1%
	strong	5	5.1%
6.	approachable	4	4.0%
	caring	4	4.0%
	dependable	4	4.0%
	trustworthy	4	4.0%
10.	accountable	3	3.0%

Note. Total number of descriptors = 99.

Appendix B

Survey instruments

Original Micro-level Communication Competence Scale.

Instructions: Complete the following questionnaire/ scale with a **specific leader outside of this organization** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the leader you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE LEADER YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The leader finds it easy to get along with others.

____ 2. The leader can adapt to changing situations.

____ 3. The leader treats people as individuals.

____ 4. The leader interrupts others too much.

____ 5. The leader is "rewarding" to talk to.

____ 6. The leader can deal with others effectively.

____ 7. The leader is a good listener.

____ 8. The leader's personal relations are cold and distant.

____ 9. The leader is easy to talk to.

____ 10. The leader won't argue with someone just to prove he/she is right.

____ 11. The leader ignores other people's feelings.

____ 12. The leader generally knows how others feel.

____ 13. The leader lets others know s/he understands them.

____ 14. The leader understands other people.

____ 15. The leader is relaxed and comfortable when speaking.

____ 16. The leader listens to what people say to him/her.

____ 17. The leader likes to be close and personal with people.

____ 18. The leader generally knows what type of behavior is appropriate in any given situation.

____ 19. The leader usually does not make unusual demands on his/her followers.

____ 20. The leader is an effective conversationalist.

____ 21. The leader is supportive of others.

____ 22. The leader can easily put him/herself in another person's shoes.

____ 23. The leader pays attention to the conversation.

____ 24. The leader is interested in what others have to say.

____ 25. The leader doesn't follow the conversation very well.

____ 26. The leader is a likeable person.

____ 27. The leader is flexible.

____ 28. The leader is not afraid to speak with people in authority.

____ 29. People can go to the leader with their problems.

____ 30. The leader generally says the right thing at the right time.

____ 31. The leader likes to use his/her voice and body expressively.

____ 32. The leader is sensitive to others' needs of the moment.

Original Macro-level Communication Competence Scale.

Instructions: Complete the following questionnaire/ scale with a **specific organization other than this one** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the organization you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE ORGANIZATION YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The chain of command/ hierarchy in the organization is well defined.

____ 2. Employees in the organization know the correct method for communicating to the organization as a whole (organization-wide communication).

____ 3. Downward communication (such as employee manuals and internal memos) is not a key resource for the organization.

____ 4. The 'grapevine' is an important part of the organization's communication.

____ 5. Upward communication (such as email, suggestion boxes, 'open door' policies, and employee attitude surveys) is a key communication resource for the organization.

____ 6. Organization-wide communication (such as memos and company meetings) emphasizes the organization's mission and goals.

____ 7. Organization-wide communication (such as memos and company meetings) encourages people to internalize decisions in line with the organization's objectives.

____ 8. Communication among groups and departments in the organization does not include 'linking pins', or employees who communicate across groups.

____ 9. Communication training programs are offered to employees in the organization.

____ 10. Employees of the organization do not use newly acquired communication skills in the best interest of the organization.

____ 11. Information is open and readily available in the organization.

____ 12. Information available in the organization does not include the why's of the information nor does it include the implications of the information.

____ 13. Employees are able to voice concerns and disagreements in the organization.

____ 14. The organization does not build trust and confidence in its employees.

Original Micro-level Ethics Questionnaire.

Instructions: Complete the following questionnaire/ scale with a **specific leader outside of this organization** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the leader you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE LEADER YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The leader encourages people to take full responsibility for their actions.

____ 2. The leader represent high ethical standards.

____ 3. Ethical behavior is the norm for the leader.

____ 4. Penalties for unethical behavior are strictly enforced by the leader.

____ 5. The leader regularly shows that he or she really cares about ethics.

____ 6. Unethical behavior is commonplace for the leader.

____ 7. Unethical behavior is punished by the leader.

____ 8. People of integrity are rewarded in by the leader.

____ 9. The leader guides decision making in an ethical direction.

____ 10. The leader disciplines unethical behavior when it occurs.

____ 11. Ethical behavior is rewarded by the leader.

____ 12. The leader is a model of ethical behavior.

____ 13. The leader accepts organizational rules and procedures regarding ethical behavior.

____ 14. Employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards from the leader.

____ 15. The leader influences ethical behavior in employees.

Original Macro-level Ethics Questionnaire.

Instructions: Complete the following questionnaire/ scale with a **specific organization other than this one** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the organization you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE ORGANIZATION YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. In the organization, people are encouraged to take full responsibility for their actions.

____ 2. The top leaders the organization represent high ethical standards.

____ 3. In the organization, people commonly engage in unethical behavior.

____ 4. The average person in the organization reports unethical behavior he or she observes.

____ 5. Ethical behavior is the norm for the organization.

____ 6. Penalties for unethical behavior are strictly enforced in the organization.

____ 7. The top leaders of the organization regularly show that they really care about ethics.

____ 8. In the organization, unethical behavior is commonplace.

____ 9. Unethical behavior is punished in the organization.

____ 10. People of integrity are rewarded in the organization.

____ 11. The top managers of the organization guide decision making in an ethical direction.

____ 12. Other people in the organization are highly ethical.

____ 13. Management in the organization disciplines unethical behavior when it occurs.

____ 14. Ethical behavior is rewarded in the organization.

____ 15. Top managers of the organization are models of ethical behavior.

____ 16. The average person in the organization accepts organizational rules and procedures regarding ethical behavior.

____ 17. Organizational rules and procedures regarding ethical behavior serve only to maintain the organization's public image.

____ 18. In the organization, employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards.

____ 19. The ethical behavior in the organization is influenced by management.

Revised Micro-level Communication Competence Scale.

Instructions: Complete the following questionnaire/ scale with a **specific leader outside of this organization** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the leader you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE LEADER YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The leader finds it easy to get along with others.

____ 2. The leader is a good listener.

____ 3. The leader's personal relations are cold and distant.

____ 4. The leader is easy to talk to.

____ 5. The leader ignores other people's feelings.

____ 6. The leader likes to be close and personal with people.

____ 7. The leader generally knows what type of behavior is appropriate in any given situation.

____ 8. The leader is supportive of others.

____ 9. The leader can easily put him/herself in another person's shoes.

____ 10. The leader doesn't follow the conversation very well.

____ 11. The leader is a likeable person.

____ 12. The leader is not afraid to speak with people in authority.

____ 13. The leader is sensitive to others' needs of the moment.

Revised Macro-level Communication Competence Scale.

Instructions: Complete the following questionnaire/ scale with a **specific organization other than this one** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the organization you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE ORGANIZATION YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The chain of command/ hierarchy in the organization is well defined.

____ 2. Employees in the organization know the correct method for communicating to the organization as a whole (organization-wide communication).

____ 3. Upward communication (such as email, suggestion boxes, 'open door' policies, and employee attitude surveys) is a key communication resource for the organization.

____ 4. Organization-wide communication (such as memos and company meetings) emphasizes the organization's mission and goals.

____ 5. Organization-wide communication (such as memos and company meetings) encourages people to internalize decisions in line with the organization's objectives.

____ 6. Employees of the organization do not use newly acquired communication skills in the best interest of the organization.

____ 7. Information available in the organization does not include the why's of the information nor does it include the implications of the information.

Revised Micro-level Ethics Questionnaire.

Instructions: Complete the following questionnaire/ scale with a **specific leader outside of this organization** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the leader you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE LEADER YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. The leader encourages people to take full responsibility for their actions.

____ 2. The leader represent high ethical standards.

____ 3. Ethical behavior is the norm for the leader.

____ 4. The leader regularly shows that he or she really cares about ethics.

____ 5. Unethical behavior is commonplace for the leader.

____ 6. Unethical behavior is punished by the leader.

____ 7. The leader guides decision making in an ethical direction.

____ 8. The leader disciplines unethical behavior when it occurs.

____ 9. The leader is a model of ethical behavior.

____ 10. The leader accepts organizational rules and procedures regarding ethical behavior.

____ 11. Employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards from the leader.

____ 12. The leader influences ethical behavior in employees.

Revised Macro-level Ethics Questionnaire.

Instructions: Complete the following questionnaire/ scale with a **specific organization other than this one** in mind. Please be as candid as possible; remember, all your responses will remain strictly anonymous. Please indicate whether you agree or disagree with each of the following statements about the organization you are thinking about. Please use the scale and write the number which best represents your answer in the space next to each item. **REMEMBER TO KEEP THE ORGANIZATION YOU ARE THINKING OF IN MIND AS YOU ANSWER.**

Completely disagree	Mostly disagree	Somewhat disagree	Not sure	Somewhat agree	Mostly agree	Completely agree
1	2	3	4	5	6	7

____ 1. In the organization, people commonly engage in unethical behavior.

____ 2. Ethical behavior is the norm for the organization.

____ 3. In the organization, unethical behavior is commonplace.

____ 4. People of integrity are rewarded in the organization.

____ 5. The top managers of the organization guide decision making in an ethical direction.

____ 6. Other people in the organization are highly ethical.

____ 7. Ethical behavior is rewarded in the organization.

____ 8. Top managers of the organization are models of ethical behavior.

____ 9. The average person in the organization accepts organizational rules and procedures regarding ethical behavior.

____ 10. Organizational rules and procedures regarding ethical behavior serve only to maintain the organization's public image.

____ 11. In the organization, employees perceive that people who violate organizational rules and procedures regarding ethical behavior still get formal organizational rewards.

____ 12. The ethical behavior in the organization is influenced by management.

Free Response Questions.

I am interested in understanding how you describe someone who is a competent or effective leader. You will be presented with a scenario of a competent leader and asked to describe that leader. Please think of a leader, **OUTSIDE OF THE ORGANIZATION YOU PRESENTLY WORK** and keep this leader in mind as you write your answer. List as many characteristics as come to mind. Remember, describe him/her as completely as you can, so that a stranger might be able to determine the kind of person he/she is from your description.

Your list may include traits, behaviors, physical appearance, or socioeconomic terms. For example, a "good physician" may be described as "hard-working," "makes house calls," "wears a white coat," "is wealthy."

*Option 1. Please take five minutes and list as many characteristics as possible for a leader.

Option 2. Please take five minutes and list as many characteristics as possible for a communicatively competent leader.

Option 3. Please take five minutes and list as many characteristics as possible for an ethical leader.

*Each participant will only be given one of the three options to answer.

Demographic Information.

Please answer the following questions:

1. Indicate your sex (M or F)
2. Indicate your age.
3. Indicate your race. (African-American, Asian, Hispanic, White, Other)
4. Indicate your marital status. (Married, Not married)
5. Indicate your highest education level completed. (Less than high school, High school, Associate's degree, Bachelor's degree, Master's degree, Doctoral degree)
6. Indicate your work classification. (Part-time, Full-time)
7. Indicate your present position. (Manager, Non-manager)
8. Indicate the number of years you've been at your present organization.
9. Indicate the number of years you've been in the workforce.

Indicate the type of organization you currently work for. (For-profit, Non-profit)

VITA

David Michael Gesler was born and raised in Orange County, California, where he attended Foothill High School in Tustin. He graduated from high school in 1988, and attended the University of California at Davis where he played NCAA football and graduated with a B.A. in Rhetoric and Communication, with a minor in Organizational Studies. For the next couple of years, Dave substitute taught at the Junior high and High school levels in Anaheim, California.

Upon moving to western Kentucky in 1996, Dave earned his M.A. in Organizational Communication from Murray State University in 1998, and after adjunct teaching at Murray State for a year, worked as a corporate trainer for Franke USA from 1999 to 2000. In the summer of 2000, Dave began attending the University of Tennessee, Knoxville to pursue his doctorate in Communication.

Dave is currently an Assistant Professor in the Department of Organizational Communication at Murray State University.

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