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**INTUITION IN DECISION MAKING BY
HUMAN SERVICE ADMINISTRATORS**

by

Judith Huber Halseth

**A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership**

**Western Michigan University
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INTUITION IN DECISION MAKING BY
HUMAN SERVICE ADMINISTRATORS

Judith Huber Halseth, Ed.D.

Western Michigan University, 1988

The phenomenon of intuition includes insights and hunches, as well as the ability to pick up clues and to see patterns. The role of intuition in interpersonal relationships, in problem solving and decision making, and in creativity makes it an important cognitive faculty. As a complement to more systematic and deductive decision making, intuition provides creative insights, especially when people consciously acknowledge intuition.

This study focused on the experience of intuition as reported by 25 administrators in human service organizations. In face-to-face interviews, the 10 women and 15 men who were known to use intuition were asked open-ended questions about their use of intuition in the decision-making process. Interview data were analyzed for themes and patterns which could contribute to knowledge on intuition and the application of intuition in decision making by human service administrators.

Significant findings included the following: (a) intuition users generally go through four stages of intuition--preparation, incubation, illumination, and verification; (b) intuition is influenced by experience, familiarity, and global knowledge; (c) use of intuition is enhanced through interaction with others, which

increases the opportunity to "pick up clues" about problems and possible solutions; (d) intuition plays an important role in the hiring process, and in sensing and resolving personnel problems; and (e) nonrepressive organizational climates facilitate intuitive thought.

This study supports the idea that intuition is a valued tool used by some human service administrators in making decisions. Additional studies are needed of (a) the ways in which organizational climate enhances or inhibits use of intuition, (b) how intuition is used in the hiring process, and (c) how administrators and managers in other work settings use intuition.

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CHAPTER I

INTRODUCTION

"The really valuable thing is intuition."

Albert Einstein

The phenomenon of intuition includes insights and hunches, as well as the ability to pick up clues and to see patterns. The many varieties of the intuitive experience reflect a range of psychophysiological processes of thought and behavior. The role of intuition in interpersonal relationships, in problem solving and decision making, and in creativity makes it "one of the most important cognitive faculties" (Lorenz cited in Bastick, 1982, p. 2).

Although everyone possesses intuition (Vaughan, 1979), some people have a more fully developed intuitive process, which includes paying attention to and trusting their intuition. The intuitive experience can range from a scientist's creative discoveries to the "day-to-day hunches and 'feelings' which guide our common actions" (Bastick, 1982, p. 2).

Purpose of the Study

Intuition is increasingly recognized as a natural mental faculty, a key element in discovery, problem solving, and decision making, a generator of creative ideas, a forecaster, a revealer of truth. (Goldberg, 1983, p. 15)

The purpose of this dissertation is to learn more about intuition, especially how it is used in problem solving and decision making by human service administrators. The researcher sought information about how and when intuition is used, and for what kinds of decisions. By interviewing human service administrators, who share some common experiences in their training, choice of a career, and types of job-related responsibilities and tasks, the researcher expected to discover patterns and common themes among the varieties of intuitive experiences. Respondents were asked to help with knowledge-building about intuition, by sharing their (a) awareness of how they recognize, characterize, experience, and report intuition, (b) knowledge about factors that inhibit or enhance use of intuition, and (c) knowledge about the usefulness or lack of usefulness of information received through intuition. In other words, respondents were encouraged to discuss if and how they notice, use, and trust intuition.

Definitions of Intuition

The intuitive experience is not a unitary phenomenon such as "anger" or "being understood," but one which encompasses numerous types of experiences. (Summers, 1976, p. 171)

The wide range of definitions from a variety of researchers and writers hints of the difficulty of "pinning down" one definition for this complex phenomenon. Several definitions of intuition, as noted in the literature, follow. A more complete review of definitions and attributes of intuition appears in Chapter II.

Information from the dictionary helps to introduce the definitions. The Latin verb intueri means "to look at," or "to see within." Webster's Ninth New Collegiate Dictionary (1987) defines intuition:

Immediate apprehension or cognition; knowledge or conviction gained by intuition; the power or faculty of attaining direct knowledge or cognition without evident rational thought and inference; quick and ready insight. (p. 635)

Vaughan (1979) made an important contribution to the current interest in intuition, defining it as a way of knowing and recognizing a variety of possibilities not readily apparent, not previously in one's conscious awareness. The themes of (a) recognizing new connections, insights, discoveries, options, and/or approaches to a problem or situation, and (b) not understanding or being able to rationally explain intuition, are common among definitions.

Other researchers describe intuition as "the psychological function that transmits perceptions in an unconscious way" (Goldstein, Scholthauer, & Kleiner, 1985, p. 40). Quantitative or statistical measurement do not readily apply to a study of intuition. The intuitive process is, to a large measure, a "right-brained" experience, difficult to describe in words; using language is a "left-brained" function. Therefore, intuition undoubtedly loses something in translation from the felt experience to words.

Qualitative research methodology was used in several recent dissertations on intuition (Denis, 1979; Jones, 1983; Summers, 1976; Truax, 1985), and participants in those studies were encouraged to express, in their own words, their unique experiences with

intuition. The researchers found that (a) the source of the intuition was experienced within the participant, and (b) the intuition seemed right to the participants, who trusted in their own intuitions and the intuitive process.

Methods

There are several difficulties in conducting a study of intuition. First, many terms and definitions are applied to the concept. Second, intuition is, by its nature, a somewhat elusive process. Given the difficulties in defining intuition, the researcher chose to conduct face-to-face interviews, asking respondents open-ended questions about how they use intuition in the decision-making process.

The study focused on the experience of intuition as reported by 25 administrators in human service organizations. The interview data were analyzed for themes and patterns which could contribute to knowledge on intuition and to knowledge of the application of intuition in decision making by human service administrators. A review of the literature on intuition and intuitive decision making guided the research.

Qualitative research methodology offered respondents in the study the opportunity to describe in their own words the unique way they experience intuition, rather than being limited by the researcher's definition (Klein, 1983; Watts, 1981).

Human Service Leaders and Decisions

In human service organizations, as in everyday life, people need to make the best possible decisions, using all the resources available. Decisions need to be made about organizational and human problems, especially those affecting service delivery to clients (Patti, 1984). A good leader is measured, among other criteria, by the effectiveness of decision making. And yet, people working in bureaucratic organizations may hesitate to suggest innovative and creative ideas, if the environment is unsupportive.

Some organizational experts and executives view intuition as a powerful tool for improving the quality of decision making in organizations. Rowan (1986) notes that intuition can be of special assistance in the major endeavors of organizations, which include "generating ideas, choosing courses of action, and picking people" (p. 15).

Vaughan (1979) also encourages paying attention to intuition in problem solving:

One is ultimately responsible for what one chooses to do, regardless of how one arrives at the decision. However, since intuition, which is so often disregarded or mistrusted, is always involved in problem solving and decision making, it needs to be consciously acknowledged. Doing so increases the range of freedom in exploring alternatives, and can prevent one from getting locked into preconceptions. (p. 172)

Intuition is an especially effective tool for "ill-structured problems," described as "neither routine and well-defined with

standard conditions, nor easily solved by immediate application of well-known procedures or decision rules" (Silverman, 1985, p. 29).

Since intuition complements rational thinking (Truax, 1985), the quality of decision making may be enhanced by using a range of cognitive skills, an integration of feelings with facts, and a synthesis of intuition and rationality.

In organizational settings, problem-solving and decision-making skills are sometimes taught by using a rational analytical approach (Kepner & Tregoe, 1981; Plunkett & Hale, 1982). The rational method of problem solving emphasizes logical, linear, and deductive reasoning, as compared with intuitive problem solving, which includes holistic, synthesizing, non-linear, and inductive qualities (Bents & Bents, 1986). And yet the rational process appears to include intuition.

It is because of [the] uncertainties that the process of Decision Analysis depends on our judgments, evaluations, experience, and intuitive feelings. All of these supply the valid data we need to support the correct decision we must make. (Kepner & Tregoe, 1981, p. 90)

In inquiring about human service administrators' use of intuition in decision making, the researcher sought to determine if and how they use intuition in leadership and management decisions.

Significance of the Study

A major significance of this study is the contribution it will make to the growing body of knowledge on intuition. Bastick (1982),

reflecting a priority for some researchers, emphasized the "need for practical enquiry into the phenomenon of intuition" (p. 4).

The study also will contribute to information on decision-making styles in human service organizations. The use of intuitive and nonlinear styles of decision making may be underestimated and undervalued. Research data on how administrators use and acknowledge intuitive insights to guide decision making may (a) provide information on whether or not the quality of decision making is improved by use of intuition, (b) offer information on types of problems for which intuition is most useful, (c) encourage people to consciously acknowledge intuition, (d) reinforce or validate intuitive people in continuing to use intuition, and (e) encourage an organizational climate supportive of intuition.

The research also may be useful for individuals interested in enhancing and further developing their own intuitive abilities.

Organization of the Study

This report is divided into five chapters. Chapter I is an introduction to the study and includes the background of the phenomenon of intuition; purpose of the study; definitions of intuition; information about human service leaders and decisions; significance; and organization of the study.

The review of the literature appears in Chapter II, beginning with a section on definitions. This is followed by a discussion of various perspectives on intuition, including (a) left- and right-

brain research; (b) management's awareness of intuition in organizational settings, with subsections on interactions, familiarity, and organizational climate; (c) Jung's work on intuition; (d) women and intuition; and (e) Eastern and Western ways. The literature review concludes with information on using and understanding intuition, including a discussion of the four stages of intuition.

Chapter III contains the design and methods of this qualitative research. The chapter includes sections on respondents, instrumentation, training the interviewers, data collection, preliminary work on data analysis, and the process of data analysis.

The findings of the study are presented in Chapter IV. Characteristics of respondents are discussed, and results of data analyses are reported.

Chapter V includes a summary of the research and conclusions. The chapter ends with a discussion of recommendations for practice, and suggestions for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

People in a variety of disciplines have contributed to the growing literature about intuition. The fields of science, psychology, business, and education, among others, contain research and scholarly thinking which add to the understanding of creative thinking and creative decision making, intuitive ways of knowing, and a variety of ways of solving problems. Recent research on the brain has added to the understanding that certain styles of thinking and knowing may be underutilized.

In much of the literature on intuition, the writers do not focus on the development of proofs of the existence, but rather accept its existence, give examples of intuition's sometimes unexplainable ways of working, and suggest future applications of intuition to enhance professional and personal goals and satisfaction.

This chapter includes a review of the literature related to intuition and decision making in organizations. The literature review is divided into three major sections that are pertinent to the understanding of this dissertation. The first section contains definitions of intuition. In the second section, perspectives on intuition are examined, including (a) left- and right-brain

research, (b) management's awareness of intuition in organizational settings, with subsections on interactions, familiarity, and organizational climate, (c) Jung's work on intuition, (d) women's use of intuition, and (e) Eastern and Western ways of thinking and knowing. The third section deals with using and understanding intuition, and includes a discussion of the four stages of intuition.

Definitions

An introduction to the range of definitions of intuition was presented in Chapter I. That section referred to the elusive nature of intuition, and the difficulty of rationally explaining the insights derived from a subjective experience.

The Latin root of the word intuition comes from tueri, meaning "to look at" or "to watch." This in turn comes from an Indo-European word meaning "to pay attention to" (Kalish & Collier, 1981, p. 69).

The sense of the inexplicableness or mystical quality of intuition emerges in some definitions. Intuition is often referred to as knowledge arrived at without some rational process of reasoning (Kalish & Collier, 1981; Rowan, 1986). A person knows simply and directly without any intervening process. The nontraditional creative quality of intuition enables a person to problem-solve or discover a solution without being able to explain the process or why that solution seemed right.

Another aspect of intuition is contained in a definition in The Encyclopedia Americana (1986): "a direct acquaintance with oneself that cannot be put into words, or a similar sensitivity to the thoughts and feelings of others" (p. 324).

Philosophers contributing knowledge about intuition include Kant and Bergson. Kant (1724-1804) defined intuition as "the source of all knowledge of matters of fact not based on, or capable of being supported by, observation" (The New Encyclopaedia Britannica, 1986, p. 360). Bergson (1859-1941) believed that intuition was the most trustworthy guide to understanding, and that intuition did not falsify things by analyzing them. Durant (1950) describes Bergson's philosophy:

This direct perception, this simple and steady looking upon (intueor) a thing, is intuition; not any mystic process, but the most direct examination possible to the human mind. . . . Is there any doubt that intuition here beholds more truly the heart of life? (Durant, p. 342)

Jung (1875-1961) researched and wrote about four basic psychological functions, ways of knowing, learning, and behaving. He labeled these styles intuitor, thinker, sensor, and feeler. Jung (1921, 1971) defined intuition as (a) "a basic psychological function . . . that mediates perceptions in an unconscious way" (1921, 1971, p. 453), (b) "perceptions of possibilities inherent in a situation" (cited in Campbell, 1971, p. 26), and (c) a function that "explores the unknown, and senses possibilities and implications which may not be readily apparent" (cited in Agor, 1984, p. 5).

Jung's work and his influence on current interest in intuition are further described in a subsequent section of this chapter.

In one of the first articles to encourage use of intuition in business settings, Mintzberg (1976) described intuition as a relational, holistic use of information, a synthesis of data, rather than analysis. In other words, he referred to putting parts together in new ways, instead of pulling apart the components of an idea or a problem and analyzing the parts.

In discussing intuition as a job skill, Josefowitz (1984) notes that "intuition is really an exquisite sensitivity to picking up patterns and minimal clues, storing them for future use, and then acting on those observations" (p. 12).

In his work on understanding the right brain, the unconscious mind, and creativity, Blakeslee (1983) states that intuition may help fill in the gaps of our rational knowledge or understanding. "Flashes of intuitive insight always involve recognition of patterns where there are gaps or literal differences" (p. 48).

Loden (1985) shared the definition given by a director of corporate planning in a major communications company, who advocates using intuition in long-range planning: "the ability to think 'holistically'--retrieving something that's approximately relevant without being able to articulate it in a fully rational process that might kill it" (p. 196).

The range of definitions and applications of intuition cited

above serve to introduce a more in-depth discussion of the literature on this phenomenon.

Perspectives

Left and Right Brain

Recent research on the brain, which includes findings about left and right hemispheres, has stimulated interest in further developing the sometimes neglected or underdeveloped functions ascribed to the right hemisphere.

Beginning in the early 1960s, Nobel Prize winner Roger W. Sperry and his colleagues and students at the California Institute of Technology studied epileptic patients whose corpus callosum, which connects left and right halves of the brain, had been surgically severed in an attempt to control seizures.

These split-brain experiments led to further research and to speculation about the contrasting functions or characteristics of each side of the brain. While some of the attributes of left and right hemisphere are research based, others come out of cross-cultural symbolism. In line with the focus of this current project, the researcher chose not to dismiss some of the as-yet "unproven" assignments of characteristics. Table 1, "Attributes Of Left- And Right-Brain Hemispheres," shows the range of characteristics which have been assigned to each hemisphere, through research and folk wisdom.

Table 1

Attributes of Left- and Right-Brain Hemispheres

Left hemisphere	Right hemisphere
Logical	Intuitive
Rational	
Controlled	Interpersonal
Factual	Sensing
Analytical	Holistic
Mathematical	Conceptual
Verbal	Nonverbal ideation
Objective	Subjective
Realistic	Creative
Deductive	Inductive
	Global
Time bound	Timeless
Deliberate	Spontaneous
Linear processing	Spatial processing
Sequential processing	Visual processing
	Simultaneous processing
Male	Female
Yang	Yin
West	East
Active	Passive
Conscious	Unconscious

Sources: Coleman, 1985; Russell, 1979; Truax, 1985.

While intuition is generally considered a right-brain function, evidence does not "prove" that intuition is located solely in the right hemisphere. Rather, intuition is likely a characteristic that relies on integrated or whole-brain functioning.

Management's Awareness of Intuition and Applications in Worksettings

Mintzberg's 1976 Harvard Business Review article, "Planning on the Left Side and Managing on the Right," appears to be one of the first times a wide audience in the business and management community was exposed to business implications of split-brain research. Over a decade later, managers and other proponents of the use of intuition in organizations continue to cite and build on Mintzberg's ideas:

The important policy processes of managing an organization rely to a considerable extent on the faculties identified with the brain's right hemisphere. . . . Organizational effectiveness does not lie in that narrow-minded concept called 'rationality'; it lies in a blend of clear-headed logic and powerful intuition. (pp. 53, 58)

Mintzberg discusses how high-ranking managers prefer face-to-face encounters and meetings rather than written memos and reports, in order to have access to body language and nonverbal cues. And he describes an early version of management by wandering around, later institutionalized by Peters and Waterman (1982) as MBWA.

Peters and Waterman also stress the importance of using both left- and right-brain sources of information, and they encourage a willingness to experiment and take risks.

Our imaginative, symbolic right brain is at least as important as our rational, deductive left. We reason by stories at least as often as with good data. "Does it feel right?" counts for more than "Does it add up?" or "Can I prove it?" (1982, p. 55)

Kanter (1983) calls the intuitive types "change masters," in her book by that title. She contrasts the stable administrative type with the intuitive entrepreneurial type. Both are needed in organizations, and more explicitness is needed in identifying which type is appropriate for a particular position at a particular time in an organization. Kanter, as well as others, describes how Roger Smith, CEO of General Motors, used his intuitive sense to look at the existing pieces of information, twist them into a new configuration, and emerge with a new view.

Some writers predict that the need for left-brain-dominated managers and employees will decrease as computer usage increases. In the future, people with creative, holistic, whole-brain thinking abilities will be more in demand, since these are skills handled poorly by computers (Herron, Jacobs, & Kleiner, 1985).

In his book on intrapreneuring (entrepreneurs inside an organization), Pinchot (1985) values intuition:

Innovation depends to a great extent on intuition and insight. In systems driven by the analysis of ideas rather than through the selection of people to trust, intuition is lost, and with it the prospect of efficiency in innovation. (p. 158)

Decisions in social service organizations may be based on a wide variety of sources of information and personal and professional motivations.

Decisions are often made on political grounds, for ideological reasons, out of traditions or habit, because of economic feasibility, from personal intuition . . . or sometimes from simple expediency. Some decisions are never consciously made: things just seem to happen. Skilled administrators use an informal "intelligence" network as a source of much information. (Weirich, 1980, p. 153)

Since 1981 Agor (1984, 1986) has been conducting studies on executives' potential ability to use intuition, as well as their actual use of the skill, in making management decisions. He tested 3,000 managers in private and public organizations, and verified that top executives' brain and management styles differ significantly from their subordinates, with top managers scoring higher on the right-brain scale. He found that effective managers rely most heavily on their feelings and intuition when they make their most important decisions. Effective managers may be more willing to take risks even when all the information is not clear.

One problem with using intuition in organizations is that lack of credibility with this nontraditional approach to decision making sometimes leads intuitive persons to inwardly or outwardly deny or hide their use of intuition. Rowan (1986) notes that "understanding how intuition works should make it seem less necessary to cover one's intuitive tracks or to offer some lame excuse to conceal the importance of intuition in arriving at a decision" (p. 7). People who generally are comfortable with their intuitive understanding may become uncomfortable under the following conditions:

when called upon to give a logical, rational justification for actions based on intuitive feelings. Demands for explanations, either from oneself or from another, are

usually met with inadequate rationalizations that fail to satisfy anybody. Rarely is someone willing to say simply that he or she chose to do something simply because it felt right. Nevertheless, people in all kinds of occupations and lifestyles do act on the basis of intuitive feelings, and feel that their decisions are better for it. (Vaughan, 1979, pp. 70-71)

Both Agor (1984, 1986) and Rowan (1986) stress the value of building a support network of other intuitive people, to share ideas, to build self-confidence in this mode of thinking and knowing, and to practice expanding and enhancing use of intuition on an individual and organizational level.

Interactions Influence Intuition

Interactions with people in the workplace and in the wider environment appear to enhance intuition and creativity. In Westcott's (1968) study, "intuitive individuals reported that they had been influenced greatly by the example of others and by extracting incidental cues from their contacts with others" (p. 192). He continues by suggesting that "cross-discipline fertilization is precisely the event which leads to new information relevant to a problem" (p. 199).

Albrecht (1987) agrees with Westcott when he emphasizes the value of contacts with other key people and of "impressions gained by investigating the environment" (p. 44) in the intuitive and innovative process.

Ramo (1988) encourages managers to provide opportunities for creative employees to interact with others at events such as

professional conferences focusing on new discoveries and developments. "Creative people tend to be more creative when they are constantly made aware of new ideas coming from others" (p. 7).

These researchers support the additional sources of information and creative stimulation that interaction with coworkers and other professionals may provide in the intuitive experience. The interaction may enhance or build on a person's existing knowledge and experience, as well as establish new chunks of knowledge and experience.

The Role of Familiarity, Experience, and Global Knowledge in Intuitive Activity

"Chance favors the prepared mind."

Louis Pasteur

The literature on intuition and creativity points to the role that knowledge, experiences, and familiarity play in the intuitive process. This may be of special interest to human service administrators, as they consider some of the bases upon which decisions are made which affect the lives of clients and employees and the attainment of organizational goals.

Researchers on intuition and creativity view past experience and familiarity in different ways, in terms of cause and effect and in terms of the ways intuition may tap into an individual's past.

In her well-respected research on biofeedback and on the connections between mind and body, Brown (1980) noted that it is still not clear "how experience and training are incorporated into the

personal repositories of the mind for human development" (p. 16).

Based on her studies, she pointed to the following:

the remarkable operation of the unconscious mind that can absorb great patterns of circumstances and meanings, extract the elements most significant for well-being, then take appropriate action to utilize what it has learned.
(p. 280)

One view of the link between intuition and familiarity was developed by Noddings and Shore (1984) in their research on and applications of intuition in education. They viewed intuition as preceding and making possible an experience, from which knowledge is later constructed. They asserted that intuition and insight are not comprehended from experience. Rather, intuition and insight form a complementary process with experience, making the experience comprehensible.

Noddings and Shore pointed out their disagreement with a positivist or behaviorist who might label decisions or actions "intuitive" when (a) a person deeply familiar with a domain of knowledge easily arrives at a solution, or (b) the analysis of a problem-solving process can't be traced or recalled. They argued that although familiarity may enhance intuitive activity, and that "those who have more information on a topic have a larger domain for intuitive exploration" (1984, p. 64), familiarity is not sufficient for producing intuitions. "If intuition follows, it also leads" (p. 65).

A contrasting emphasis came from researchers who credited global knowledge and past experience as greatly enriching and

increasing the possibility of intuition and who see intuition as "the first and a necessary stage of creativity" (Bastick, 1982, p. 309). Bastick conducted a comprehensive survey of the experiments and literature on intuition, which led him to build an overarching list of 20 properties of intuition and insight, which he labeled a "Theory of Intuitive Thought Processes." One of those properties is "influenced by experience" (p. 25), and he subsequently developed this as the "global nature of intuition" (p. 171).

To increase the likelihood of objectively original and true verifiable intuitions, the creative person needs a global knowledge of his field of study . . . and extensive feeling for his field of work. (p. 386)

The point about "feeling for his field of work" was emphasized by Bastick (1982), as he discussed the role of emotional cues in the process of insight. He believed that emotional sets, which are evoked through empathy, are essential for intuitively relating an event, person, or object in the present to something experienced in the past.

Past experiences condition response to contiguous emotional states, producing emotional sets. These emotional sets are the attitudes with which we approach present situations. . . . Emotional sets conditioned by past experience are intuitively used to evaluate present experience. . . . The process of intuition relates these present experiences to past experiences. . . . The emotional set for evaluating a present experience is evoked through empathy. . . . Empathy is a major constituent of intuitive thought and is dependent on past experience. . . . Empathy is a process we use in understanding present experiences. (1982, pp. 77, 78, 81)

Thus, Bastick saw a strong potential link between a present situation, problem, or person, and past knowledge or experience,

when the experiences are grounded in emotional and/or kinesthetic sensations, especially empathy.

Another perspective on the relationship between intuition and a storehouse of knowledge and experiences came from Westcott (1968). His historical, theoretical, and empirical inquiry into the contemporary psychology of intuition significantly influenced subsequent researchers. He labeled his framework "intuition-as-inference" (p. 201), frequently referred to explicit and implicit information, and explored "problem-solving under conditions of information deprivation" (p. 189). Westcott defined intuition as occurring when a person "reaches a conclusion on the basis of less explicit information than is ordinarily required to reach that conclusion" (p. 97).

Although Westcott (1968) acknowledged that "most people are unable to use everything to which they actually have access" (p. 202), he clearly valued an enriched environment and a broad base of experiences.

The greater the breadth of scholarship, the greater the range of sources for implicit information, for remote associations, and the greater the possibilities for intuitive thinking and creative work. Breadth of scholarship--in the sense of cross-disciplinary knowledge--accompanied by depth in one's own special area provides the basis for rich analogies, for remote associations within a context of concerns shared by diverse groups of people. It provides a basis for education of novel correlates, for problem solutions triggered by apparently absent information. (1968, p. 201)

Other researchers who believed that intuition is influenced by experience include Albrecht (1987), Austin (1978), Herron, Jacobs,

and Kleiner (1985), Isenberg (1984), Miller (1986, 1988), and Simon (1988). Their work showed that in the intuitive process the mind links the present with memories, a data bank, or old familiar patterns.

As part of his research on intuition, Austin (1976) studied the creative and intuitive discovery process of some of the world's most remarkable inventors and scientists. He sought a better understanding of the connection between experience or familiarity with one's field of study, and the breakthrough of discovery.

We evaluate our environment through subconscious processes which we now call intuition. Although our hints and our hunches seem instantaneous, they may well mean that we have successfully forged links between scattered memories and partial solutions buried in the past and observations drawn from the present. Intuitive thinking and creative associations in general involve "thinking in loops." They differ from logical thinking in which rational sequences appear to unfold in a straight and reasonably predictable line. (p. 161)

In his work on applications of intuition and creativity in worksettings, Miller (1986, 1988) also acknowledged the importance of experience, and like Austin, contrasted intuitive thinking with logical thinking.

Our intuition remembers data that our conscious mind has stored away. It is our inner, intuitive world that is constantly giving us the guidance and answers to our questions about living and problem solving, especially when our logical, linear thinking reaches its limit. (1986, p. 83)

Simon (1988), also writing about intuition, creativity, and creative management, noted the importance to the manager of recognizing familiar patterns.

The ability to achieve sudden insights into situations by recognizing familiar features in them depends on having stored a great deal of knowledge--knowledge about the familiar patterns that can be recognized and knowledge of the cues for recognition. (p. 15)

A different perspective came from Albrecht (1987) in his discussion of steps and activities which enhance the process of creativity, innovation, and intuition. He too believed that intuition is influenced by experience, and he advocated "tuning in to your outside environment" (p. 37), as a necessary step in giving the creative and intuitive mind the raw material it needs for its work.

Creative people spend a great deal of their time and energy paying attention to their surroundings. They are enormously curious about many different things, and are continually inquiring into new and unfamiliar subjects. They constantly educate themselves in a variety of ways, such as reading books and articles, talking with interesting people, and going to interesting places. . . . Problems exist all around you, and the elements of the solutions are there, too. If you supply your mind with plenty of raw material--ideas and information--it will process that material automatically and transform it into new ideas and new solutions. . . . Creative thinkers absorb information around them by being open to many possibilities and ways of thought. They get more out of their brains because they put more into them. They routinely take in new ideas, use their imagination, make new connections, and arouse their curiosity. (pp. 37-38)

Isenberg (1984) also stressed the value of building a broad base of experiences, to enhance the possibility of making connections beyond the obvious or readily apparent alternatives. In his in-depth interviews with a dozen senior managers on what they think about and how they think, Isenberg reported the following:

[They] constantly maintain and sharpen their intellectual abilities in order to better analyze their current and past experiences. . . . These senior managers read

books outside their fields, engage in enthusiastic discussions of political and economic affairs, attend academic lectures and management seminars, and tackle brainteasers. . . . These activities are valuable not only for their content but also for the thinking processes that they establish, develop, and refine. . . . They are developing critical mental resources that they can then apply to problems that arise in their jobs. (p. 89)

This important facet of the decision-making process and of intuitive thinking was summed up by Herron, Jacobs, and Kleiner (1985), in their work on enhancing the potential of the right brain for decision making.

Intuition is most effective when the manager has a large memory bank of prior experience and information. The more ideas the mind has available to it, the greater the likelihood that a new combination or extension will occur. (p. 18)

The importance of acknowledging that intuition is influenced by experience appears significant. Intuition is not a gift that operates in a vacuum, where someone with little knowledge or experience in a given area is likely to demonstrate effectiveness in problem solving. Apparently intuitive people draw on the entire picture of their lives as they scan (however the process occurs) for familiar patterns or information. Awareness that intuition is influenced by experience may encourage valuing certain activities over others, especially in supporting enriched environments and a broad range of experiences for people who are or who will be involved in decision-making roles in organizations.

Organizational Climate Affects Intuition

Creative and intuitive thinking and decision making are facilitated by a supportive organizational environment or climate which encourages employees to experiment and innovate (Weiner, 1982).

"Nonrepressive environments facilitate intuitive thought" (Bastick, 1982, p. 350).

Brunner (1962), in his work on how people construct reality by the process of knowing, notes that "intuition . . . is founded on a kind of combinatorial playfulness that is only possible when the consequences of error are not overpowering or sinful" (p. 102). He states that intuition would be hampered by stressing the importance of right answers at all times.

Another aspect of the climate which helps promote intuition and creativity is the likelihood that new ideas will be considered and some implemented.

Before turning people loose to generate new ideas, a climate that supports implementing those ideas is essential. Otherwise, a sense of frustration and betrayal will be the result of well-intentioned requests for employee suggestions and participation. (Miller, 1988, p. 114)

Several researchers offer guidelines for developing an organizational climate which encourages intuitive and creative problem solving (Agor, 1986; Rowan, 1986; Silverman, 1985; VanGundy, 1984).

Agor recommends the following:

1. Locate and use intuitive talent.
2. Integrate intuition with more traditional management to solve critical problems.

3. Systematically develop intuitive talent for applied problem solving.

4. Create a supportive organizational environment for increasing use of intuition.

VanGundy (1984) offered a series of suggestions related to ways (a) the external environment could support task factors and people factors, (b) individuals could enhance their own internal creative climates, and (c) the group could improve the quality of interpersonal relationships among group members.

While several studies suggested strategies for enhancing intuition in organizations, little is known about the results of attempting to change an organizational climate--the effect on productivity, on intuition and creativity, and on employee morale.

Most studies reviewed neglect (a) addressing the impact an intuitive person could have on the organizational climate, and (b) distinguishing between the different effects of a supportive or nonsupportive climate on an intuitive or a less-intuitive person. One exception was Ramo (1988), who addresses the effects of different environments on different people.

Those personnel who happen to be innately creative will, to some extent, creatively attack their responsibilities no matter how modestly the overall company encourages imagination or how meager the managerial effort is to promote creativity. Other employees, those who happen not to be particularly imbued with the creative spirit, will settle down to a largely dull and mundane approach to their work. Whatever potential they may have for innovating will remain undeveloped and may even decay. (p. 7)

It appears that a supportive organizational climate that encourages employees to experiment and innovate will enhance and support the work of people who are already creative and intuitive, and will encourage and stimulate "those who happen not to be particularly imbued with the creative spirit" (Ramo, p. 7) toward more innovative, creative, and intuitive thinking and problem solving.

Jung's Contributions

Jung, Swiss psychologist and psychiatrist, studied the roles of conscious and unconscious processes as they influence behavior. He contributed to knowledge about intuition, especially through his studies of four basic styles of psychological functioning: thinking, feeling, sensing, and intuiting, and through his work on the concept of the unconscious. Jung's other valued contributions include (a) development of the concepts of "extrovert" and "introvert," (b) emphasis on the importance of paying attention to one's dreams, which include archetype symbols, and (c) development of the concept of synchronicity--the principle which unifies meaningful coincidence, individual consciousness, and space and time (Peat, 1987).

Jung drew heavily on his clinical work and his personal experiences as he developed new ways of understanding and explaining psychological functioning. He believed that a person's primary personality type was affected by both heredity and societal influences.

Jung wrote extensively on intuition, defining it as "perception of the possibilities inherent in a situation" (cited in Campbell, 1971, p. 26).

I regard intuition as a basic psychological function. It is the function that mediates perceptions in an unconscious way. . . . Intuition may be subjective or objective: the first is a perception of unconscious psychic data originating in the subject, the second is a perception of data dependent on subliminal perceptions of the object and on the feelings and thoughts they evoke. . . . intuition is an irrational function. . . . not contrary to reason, but beyond reason. (Jung, 1921, 1971, pp. 453-454)

He also identified differences between introverted intuitives and extroverted intuitives.

Introverted and extroverted intuitives may be distinguished according to whether intuition is directed inwards, to the inner vision, or outwards, to action and achievement. (p. 454)

The primary function of intuition, however, is simply to transmit images, or perceptions of relations between things, which could not be transmitted by the other functions or only in a very roundabout way. These images have the value of specific insights which have a decisive influence on action whenever intuition is given priority. (p. 366)

Jung believed in the importance of paying attention to the unconscious, "since the unconscious is at least half of his total being," to dreams, which "frequently offer him advice or guidance that could be obtained from no other source" (Freeman cited in Jung, 1964, p. 13), and to intuition.

even a man of high intellect can go badly astray for lack of intuition or feeling. . . . Imagination and intuition are vital to our understanding. (Jung, 1964, p. 92)

Jung's conceptual framework of thinking, feeling, sensing, and intuiting guided the work of Myers and Briggs, who developed the

Myers-Briggs Type Indicator (1962, 1980) as a means of determining a person's Jungian type. Current interest by individuals and organizations in learning more about temperament types or psychological styles can be traced back to Jung.

Women's Use of Intuition

In her research on feminine and masculine styles of leadership, Loden (1985) interviewed 200 women and 50 men, including a group of successful senior executives, and a group of individuals still moving up within management. Her research indicates the following:

Many women managers favor the intuitive approach to problem-solving over the more traditional rational model. Some state that they find intuitive thinking to be a better fit with the way they process information and make sense of the world. (pp. 188-189)

Agor's findings (1984, 1986) also indicate that women, more so than men, prefer the intuitive style of managing. He found that women rely more on intuition for problem solving, and that intuition is an integral part of women's management style. His findings also showed a similarity between female managers and top male executives in their reliance on intuition. However, the majority of men Agor tested preferred the traditional rational approach.

Other researchers find little or no difference between female and male ability to use intuition. Vaughan (1979) states that there is no evidence that women and men are inherently different in their capacity to be intuitive. However, she notes that because women in this society are not taught to repress feelings and emotions as much as are men, women may practice and use intuition more openly.

Little boys are taught early not to cry and not to be emotional. Little girls may escape some of the rigorous training in rational intellectual development, which is stressed for boys wanting to be successful in a highly competitive society. Boys, however, are just as capable as girls when it comes to developing the intuitive functions of the right hemisphere of the brain. (p. 70)

Noddings and Shore (1984), in their research on intuition in education, discuss the multiple influences which shape intuitive behavior in women.

At present it is impossible to separate the influences of woman's biological role as nurturer, the greater degree of emotional expression typically allowed women in our society, and traditional folklore stereotyping on the shaping of the concept of women's intuition. (p. 38)

In discussing whether women are more intuitive than men, Goldberg (1983) notes that brain research indicates that "women seem to have a greater ability to switch from one side of the brain to the other" (p. 96).

For purposes of this study, it seemed more important to focus on how both women and men use intuition for their own benefit and for the benefit of their organizations, than to debate the pros and cons of which gender is "better" intuitively.

Eastern and Western Ways

Major contrasts exist in Eastern and Western ways of religion, psychology, philosophy, pace of life, meaning of life, and style of thinking and knowing. Eastern and Western people have selectively borrowed from each other's philosophy and life style, while resisting other characteristics.

This section briefly contrasts styles of thinking and knowing; styles of problem solving; styles of leadership, management, and organizations; and views of intuition in Eastern and Western cultures.

In Eastern philosophy, intuition develops out of spiritual growth. Intuition includes an awareness of connection with a universal mind and a trust that the answers are within oneself. In Buddhism the student is taught to look inward, into one's own mind, to discover the truth. In Zen meditation, the follower quiets the conscious mind and opens the channel to the intuitive mind (Vaughan, 1979).

These themes of slowing down, relaxing, creating an altered state of consciousness, or putting the problem out of one's mind, appear frequently in literature on enhancing one's ability to use intuition.

This serene-sounding way of looking at life is in sharp contrast to many facets of a Western way of life, at least for many white Westerners. The "hurry up," workaholic, perfectionist, scientific, rational, logical, "more is better" philosophy and life style may squeeze out any possibility of contemplation, of listening to the inner voice, or of acknowledging the intuitive discoveries of others.

Traditional, or Western, methods of problem solving were briefly described in Chapter I. One reason intuition may be viewed with suspicion relates to lack of a precise, provable, quantifiable

definition, in a contemporary Western society that values quantifiable proofs.

Goldberg (1983) discusses use of a rational-empirical mode of thinking and problem solving, which he says works best under three conditions:

When we can control or predict all the variables that affect the subject matter under consideration; when we can measure, quantify, and define with precision; and when we have complete and adequate information. (p. 25)

Since these conditions often cannot be met, Goldberg (1983) holds that relying solely on the rational-empirical mode is not judicious, and acknowledging the value of using a more subjective and intuitive mode in the process of thinking and problem solving is more honest and realistic. Honest, because problem solvers seldom rely exclusively on rational-empirical data, allowing their subjective experience and ways of knowing to color the information and data they generate. Goldberg says that if a person's only tools for thinking and problem solving are rational-empirical, the "vision will be restricted to what can be analyzed and measured" (p. 25), and won't deal effectively with values, morals, and human issues.

Using and Understanding Intuition

Since intuition appears to play an important role in problem solving, and since people in organizations are often faced with making the best possible decisions, this section includes a review of literature related to understanding, teaching, and encouraging use of intuition as part of the problem-solving process.

Many writers and researchers on intuition and creativity believe that it is possible to train and develop intuitive ways of knowing. Zdenek (1983) emphasizes paying attention to hunches:

Intuition is impossible to manipulate, but we can invite this "different way of knowing" into our consciousness when we are in a state of relaxed readiness. Paying attention to your hunches, messages, or any extrasensory experiences can increase your sensitivity in many critical areas. (p. 232)

There are two basic ways of encouraging creativity, innovation, and intuition in an organization. One is a structural approach, which focuses on "building an environment which fosters and encourages new ideas instead of squelching them" (Gordon & Zemke, 1986, p. 30). The other approach focuses on teaching people to develop, notice, value, and use their intuition.

Both approaches are important: (a) the environment, the organizational climate, may need to be modified to support and encourage intuition, and (b) individuals can be taught to develop, enhance, understand, and trust their own use of intuition as a way of knowing (Bents & Bents, 1986).

Four Stages of Intuition

In 1926 Wallas (cited in Blakeslee, 1983; Goodspeed, 1983; Harman, 1984-85) identified four stages of a whole-brained model of creativity, and other researchers (Austin, 1978; Rowan, 1986) elaborated on this model for use with intuition: preparation, incubation, illumination, and verification. For many researchers and

writers, these four stages form the framework for discussions on how to develop, enhance, recognize, and use intuition.

Rowan (1986), building on Wallas' work, defines the four stages:

1. Preparation: creativity favors the prepared mind.
2. Incubation: letting the subconscious do the work.
3. Illumination: waking up in the middle of the night and shouting, "Eureka, I've got it!"
4. Verification: then working it all out linearly. (p. 33)

These, he states, are the four crucial steps for inducing and verifying intuition.

The preparation stage includes the storehouse of information and experiences that an individual has accumulated through the years. This storehouse also includes unconscious knowledge experienced or learned either consciously or subliminally, and access to the universal unconscious (Vaughan, 1979). This input from facts, experiences, and unconscious knowledge gained over the years can be combined with other right-brain cues (Agor, 1986). In addition to acquiring the necessary knowledge and skills, the preparation stage also includes doing some preliminary work on the problem (Harman, 1984-85).

Two important facets of the incubation stage are relaxation and allowing time. It is important to quiet the mind (Vaughan, 1979). "Relaxing . . . and letting the mind wander off in another direction, gives it freedom to find the answer" (Rowan, 1986, p. 82).

Some managers report their best hunches come to them while driving to and from work, or while taking a shower. "Simple . . . routine physical activity seems to distract the left brain, and this allows the right brain to think and work uninhibited" (Goldstein, Scholthauer, & Kleiner, 1985, p. 44).

It appears important to consider the time factor when engaging in a problem-solving meeting. The literature cited above points to the possibility that if participants are pressured to reach a decision before allowing time for incubation and illumination, the best ideas or decisions may not have time to emerge.

The crucial issue in the illumination stage, according to Rowan (1986), is "don't tune out your hunch" (p. 113). This is the stage where dreams, metaphors, analogies, visualization, and "Eureka!" experiences may hold important insights. For example, analogies are useful because they form pictures of "new ideas and concepts using concrete images rather than abstractions" (Rowan, p. 121).

Agor (1984) notes that intuition does not evaluate. It indicates possibilities and provides insight into the nature of things. Therefore, the stage of verification, the checking out with rational facts, is important. For example, asking the question "Do the facts support your hunch?" (Rowan, 1986, p. 158) and checking out the idea with others, help guide the verification process.

Information about these four stages can be shared with people wanting to enhance their own use of intuition, since understanding the process increases the likelihood of using intuition.

Intuition can't be commanded; rather, readiness encourages intuition.

Certain attitudes and behavior will encourage intuition, and these are worth cultivating as long as we remain true to ourselves. In subtle ways we tell the intuitive mind what we expect of it, and we get what we expect.
(Goldberg, 1983, p. 155)

And Rowan (1986) adds, "That's why a vivid mental picture of ultimate success helps steer an individual intuitively to a desired objective" (p. 153).

Summary

Reviewing the literature assisted the researcher in developing and conducting the study. Intuition is a function which senses possibilities which may enhance decision making, by tapping into more subjective insights. Interactions with people in the workplace and in the wider environment appear to enhance intuition and creativity. Knowledge, experiences, and familiarity seem to play an important role in the intuitive process. A "nonrepressive" organizational climate facilitates intuitive thought.

Since little research has been conducted on administrators in human service organizations, the researcher sought to determine how these administrators experience and use intuition in decision making.

Chapter III will describe how this study was conducted.

CHAPTER III

DESIGN AND METHODS

Introduction

This chapter contains an overview of the research methods, and sections on respondents, instrumentation, training the interviewers, data collection, preliminary work on data analysis, and the process of data analysis.

Overview

The primary method of this study was an open-ended interview approach, asking respondents to describe, in their own words, their own experiences. Giving respondents an opportunity to elaborate beyond the specific data requested by the researcher increased the opportunity for expanding the knowledge about intuition.

The research was approached both deductively and inductively. On the one hand, the data collection and analysis were guided by current knowledge about intuition and the intuitive process in decision making. On the other hand, the holistic-inductive method of letting knowledge emerge from the data was also useful, since the data revealed themes or qualities that represented intuition to the particular respondents.

Because this is an exploratory descriptive study, and because the respondents were not selected randomly, the purpose was to report findings, and "no inferences to a larger group or population can be derived from the analysis" (Balian, 1982, p. 43).

Respondents

The respondents in this study work as administrators, program directors, or executive directors in human service, social service, or social welfare organizations.

Respondents were chosen by purposeful sampling, with the goal of learning as much as possible about the research questions. The researcher looked for social service administrators who make decisions which impact aspects of the organization such as programs, budgets, personnel, and policy. In addition, the researcher looked for administrators who use intuition as a component of their decision making.

The researcher developed a list of executives and administrators in human service organizations in the geographic area served by the School of Social Work, Western Michigan University. This was drawn primarily from existing listings of executives and administrators who had participated in activities sponsored by the School of Social Work or its faculty. These activities included serving as a field instructor, participating in a research project, graduating from the master's degree program, or serving in an advisory capacity. The geographic area included northern Indiana, southwestern

and western Michigan as far north as Grand Rapids, and south-central Michigan as far east as Lansing.

Initially, several administrators were invited to participate in the pilot study of the instrument. For the main study, the researcher invited administrators from a variety of human service settings to participate. The objective was not to compare people on the basis of gender, type of organization, rural or urban setting, job title, type of formal training, years of experience as an administrator, or use of intuition. Rather, the objectives were (a) to learn more about intuition, and (b) to learn about the range of experiences in using intuition as a component of decision making by human service executives and administrators.

The researcher purposefully selected people who could be expected to contribute their knowledge about how they use intuition in their organizations.

Purposeful sampling is a useful strategy for learning and understanding complex phenomena in greater depth and detail. This involves selecting for study the cases the researcher thinks will produce the most learning--in this instance, persons considered to use intuition in decision making, based on the impressions of others.

After reviewing previous dissertations on intuition and considering the pros and cons of being explicit about the focus of this study, the researcher determined that the most could be learned about intuition by being clear at the first contact about the focus

of the research. This enabled prospective respondents to decline participation in the study, due to lack of time, interest in the topic, and/or personal use of intuition.

In her research on intuition, Denis (1979) interviewed persons who perceived themselves to be intuitive or who were perceived by others to be intuitive.

It became very important at the outset to seek out people who are aware that they are intuitive or who have had intuitive experiences because these people were thereby able to reflect on their experiences and subsequently were able to describe, verbalize and translate that experience in a meaningful manner. (p. 15)

This researcher followed the guidelines of Taylor and Bogdan (1984), who advise the qualitative researcher to define the sample on an ongoing basis as the study progresses, rather than predefining the number and nature of interviewees. Additional cases to be studied can be consciously selected according to the "potential for developing new insights or expanding and refining those already gained" (Taylor & Bogdan, p. 18, attributed to Glaser & Strauss).

In this study, from the list developed through the Western Michigan University School of Social Work, persons were invited to participate based primarily on the following criteria: (a) a person believed to use intuition in decision making, based on the impression held by others, and (b) a person who could be expected to contribute experience with and knowledge about intuition. Informal knowledge of the decision-making style of many of the administrators on the list was known to School of Social Work faculty. Early respondents in the study were asked to suggest administrators in

other agencies who they consider use intuition in decision making, further building the pool of possible participants for the study.

Instrumentation

An interview guide (see Appendix A), which could be expanded or revised for subsequent interviews, was developed for use in face-to-face open-ended interviews. The interviews were tape recorded for later transcription.

"The purpose of interviewing is to find out what is in and on someone else's mind" (Patton, 1980, p. 196) and to learn "how people in everyday interactions construct definitions for their situations and shape their realities" (Watts, 1981, p. 362). In forming questions about the use of intuition in decision making, the researcher hoped to tap into the thoughts and feelings that the respondent became aware of, as a result of the questions and probes, and was willing to share with the interviewer. The interview was intended to provide a setting in which participants could communicate "their own understandings in their own terms" (Patton, 1980, p. 205).

The interviews were conducted by the principal researcher and two research assistants. Basic open-ended questions provided a framework for the interview, followed by suggested probes to be used at the discretion of the interviewer. The interviewers exercised flexibility in following leads offered by the respondent, or in exploring related topics in more depth.

Advantages of the open-ended interview guide included (a) flexibility to react to the respondent's leads, (b) increased ease in organizing and analyzing data, (c) reduction of interviewer effect and bias, and (d) increased comparability of data for each respondent (Patton, 1980).

The three interviewers worked together on the process of formulating and modifying the research questions. The pilot test of the instrument by each of the interviewers continued the process of modifying, expanding, and revising the questions. After the tape-recorded pilot interviews were reviewed and transcribed, needed modifications became obvious.

As interviews proceeded, periodic team meetings were held to revise and refine the instrument, which resulted in the development of an "evolutionary" instrument.

Training the Interviewers

The primary reason for using three interviewers was to reduce or balance the effect of possible bias of any one person working alone (Patton, 1987).

The research assistants (a) were coached in appropriate interviewing methods (Michigan Survey Research Center, 1976; Taylor & Bogdan, 1984) by the principal researcher, (b) became familiar with the proposal for this study, (c) reviewed selected literature on the focus of this study, (d) practiced a simulated interview in a role-play format, and (e) conducted one or two pilot interviews. Tape

recordings of the pilot interviews were reviewed for feedback and suggestions for possible modifications in the interviewer's style.

To avoid reducing the research assistants to the status of "'data collectors' who have no say in research design and analysis and, therefore, no stake in the research," the research assistants were involved, when possible, in the "process of formulating the research questions, deciding on field strategies, and making sense out of the data" (Roth, cited in Taylor & Bodgan, 1984, p. 70).

Data Collection

Twenty-five individual face-to-face interviews, with open-ended questions, were tape recorded and transcribed to capture the responses.

Respondents were incrementally selected from the list of human service administrators and executives developed for this study. That is, several names were chosen for the pilot study, followed by several more names for the first group of interviews in the formal study. Prospective respondents were initially contacted by a letter (see Appendix B) explaining the study and inviting their participation. A follow-up phone call determined their willingness to engage in an interview. Details of appointment time and place were negotiated with individuals interested in an interview for the study.

Issues of confidentiality and anonymity were addressed by asking the respondent to read and sign a consent form (see Appendix

B) at the beginning of the interview. Care was taken to protect the privacy of each individual in the collection of data, in subsequent writing of the results, and in any discussion of the study. The appropriate application was approved by the Human Subjects Institutional Review Board, Western Michigan University.

A face sheet (see Appendix B) was used at the beginning of the interview to gather demographic information.

Respondents were asked to set aside between 60 and 90 minutes for the interview. Within this general time frame, the interviewer probed until as rich a description as possible emerged concerning if, how, and under what conditions the respondent uses intuition. However, termination of the interview took place early if "the interview has ceased to be productive (the information is redundant; both interviewer and respondent display fatigue; the response seems to be guarded)" (Lincoln & Guba, 1985, p. 271).

Thank-you letters were sent to respondents (see Appendix B).

The first interview took place on February 17, 1988, and the last (25th) interview was held on April 28, 1988.

Preliminary Work on Data Analysis

The tape-recorded interviews were transcribed by a typist to facilitate coding, analysis, and interpretation.

Data analysis was an ongoing process in this qualitative research. "Researchers gradually make sense out of what they are

studying by combining insight and intuition with an intimate familiarity with the data" (Taylor & Bogdan, 1984, p. 130).

An early step in data analysis, prior to conducting the interviews, was the development of Table 2, "Preliminary Dimensions To Guide Data Gathering And Coding," shown on page 47.

Miles and Huberman (1984) advise building such a conceptual framework prior to conducting interviews, in order to focus and set limits on the collection of data. This researcher looked for "patterns, categories and themes for which a typology can be constructed to elucidate variations and contrasts in activities and participants" (Patton, 1980, p. 309). Based on the review of the literature, previous research, and the focus of this study, the following four labels provided a preliminary framework for coding and organizing the data: internal/personal, setting, language, and problem solving and decision making. The categories under each of the labels describe dimensions which respondents could be expected to address.

The questionnaire did not explicitly ask about all 18 dimensions noted in Table 2. Based on previous research on intuition, the researcher expected that when asked about their use of intuition, respondents would discuss some of these dimensions not explicitly named by the interviewer.

Table 2

Preliminary Dimensions of Intuition to
Guide Data Gathering and Coding

Information supplied by respondents may provide data for the following categories. This framework may be revised as the research progresses.

- A. Language
 - 1. Language used by participant to describe
 - 2. Metaphors, analogies
 - 3. Participant can't rationally explain
 - B. Four Stages of Intuition
 - 1. Preparation
 - a. Prior experience with and information on problem situation
 - b. How to spark intuition
 - 2. Incubation
 - a. Allowing time
 - b. Relaxation, meditation
 - 3. Illumination
 - a. How recognized
 - 4. Verification
 - a. Check out with facts
 - b. Integration or synthesis of right- and left-brain thinking
 - C. Internal/personal
 - 1. Emotional responses; feelings
 - 2. Body sensations
 - 3. Source of intuition within or external
 - D. Setting
 - 1. Organizational climate; environment
 - 2. Inhibiting/enhancing factors
 - E. Problem Solving and Decision Making
 - 1. Creativity; innovation; discoveries; new knowledge
 - 2. Types of problems where used
 - 3. Confidence and trust vs. risk
 - 4. Quality of decision or outcome
 - 5. Usefulness or lack of
 - 6. Strategies of, or problems, selling others on intuitive decision
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Data Analysis

The process of data analysis began during the early interviews, as certain themes emerged in several interviews. Because this led to modification of the interview instrument, the opportunity to gather more relevant information increased in subsequent interviews.

While interviews were still in progress, the primary researcher developed an evolving list of themes or codes. In some cases these codes fit into the pre-interview "Preliminary Dimensions To Guide Data Gathering And Coding." In other cases the codes reflected new discoveries of important categories or uses of intuition shared by respondents.

The code list consisted of short abbreviations or acronyms to represent a category. Examples included (a) "PUC," meaning "pick up clues" from other people, (b) "SIT," meaning situations in which intuition occurs or is useful, (c) "WO," meaning words used by the respondent to define or describe intuition, and (d) "INC" for the incubation stage of the intuitive process.

To test the initial code list, the researcher chose the transcripts of two interviews which contained many rich examples of how each respondent used intuition at work. While playing the audio tape, and simultaneously reading the typed transcript, the researcher noted in the margins of the transcript instances of appropriate codes. New codes were added to the code list, as additional categories emerged from listening to the tapes and reading the transcripts. Simultaneously listening and reading offered the

researcher the opportunity to hear the inflection and the emphasis of the respondent's voice. This also facilitated identifying words which may have been difficult for the typist to transcribe.

After coding two interviews, the researcher revised the code list and grouped codes under major categories, such as "Relationships with Others," and "Types of Problems."

In coding the remaining transcripts, additional codes were added, and the grouping under major categories was refined. The researcher continued the practice of listening to the audio tape while reading and coding the typed transcript.

The next step involved developing a matrix (Miles & Huberman, 1984). Posting the codes on large wall charts provided a major aid in analyzing the data. Four sheets of chart paper, 27" x 32", commercially ruled in one-inch squares, provided a way to make themes visible, and to enable the researcher to more easily pick out the most significant themes. The researcher entered, across the top of each of the four sheets, the code number for each interview (e.g., J1, J2, . . .). Down the left hand side of each sheet the researcher entered the abbreviated 108 code names.

The next step involved entering on the wall charts, from each transcript, the page number of each instance of each code. For example, for respondent J1, next to the code "OC +/-" (Organizational Climate--Enhancing/Inhibiting Factors), the page numbers 9, 10, 13, 19, and 20 were entered.

During this process, the researcher began linking and combining categories or codes for analysis, as new connections emerged. In some cases codes appearing unique to one or two respondents could be analyzed with a more general code.

A visual scanning of the four charts revealed possibilities for choosing which codes to begin to analyze in the next stage. Using photocopies of transcripts, a cut-and-staple process followed. For example, all sections coded "REL" (Relationships) from all transcripts were cut and stapled on 5" x 8" index cards. Informal sorting into piles helped move forward the process of analyzing and writing.

Using a word processor, the researcher entered respondents' quotations and wrote linking paragraphs. This material could easily be moved around as new possibilities emerged for analyzing and interpreting the data.

An important activity during this phase of data analysis was reading, writing, and facilitating workshops related to intuition and to teaching to left- and right-hemisphere learners. Integrating these related areas and discussing the preliminary findings of this research with others helped the researcher see the bigger picture: the range of experiences of intuition and the variety of applications for intuition.

As noted in Chapter I, respondents in this study helped with knowledge-building about intuition, as they shared (a) their awareness of how they recognize, characterize, experience, and report

intuition, (b) their knowledge about factors which inhibit or enhance use of intuition, and (c) their knowledge about the usefulness or lack of usefulness of information received through intuition.

Summary

This chapter discussed (a) the choice of qualitative methodology, (b) respondents for the study, (c) development of the interview instrument, (d) training of the interviewers, (e) data collection, (f) preliminary work on data analysis, and (g) analysis of the data. Chapter IV will report the findings from this study.

CHAPTER IV

FINDINGS OF THE STUDY

The findings of the study of intuition in decision making by human service administrators are reported in this chapter. Information about the respondents is included in the first section. Results of analysis of the qualitative data are reported in the second section.

Information About the Respondents

As noted in Chapter III, human service administrators were invited to participate in this study based on the impression held by others that these administrators used intuition as a component of decision making.

The sample in this study consisted of 10 females and 15 males holding administrative positions in human service organizations. Twenty-eight persons were invited to participate, and 25 agreed to an interview, scheduled for one to one-and-a-half hours. In all but two instances the interviews were held at the respondent's place of work. In 17 of the 25 interviews the respondent and interviewer had interacted professionally prior to the interview.

The geographic area covered northern Indiana and southwestern and central Michigan, bounded on the east by Lansing and on the north by Grand Rapids.

The age of respondents ranged from 33 to 60 years, with a mean age of 43.

Twenty-three of the respondents held a master's degree. The highest degree of two respondents was a bachelor's degree, and one of those persons is currently pursuing a master's degree. Three others held doctorates. Of the 17 holding a Master's of Social Work, eight received a concentration in social treatment, and nine received a concentration in policy, planning, and administration.

Size of the respondent's agency or organization ranged from a four-person office to thousands of employees in a corporate setting. Thirteen respondents worked in an organization employing between 40 and 200 people.

The 25 respondents worked in 23 different organizations, representing a wide range of human service agencies and services. These included social work and social welfare services in public and private agencies, Community Mental Health, Department of Social Services, health and hospital units, counseling services within large corporations, inpatient facilities, and a variety of services for children, adolescents, adults, and older adults. No representatives of educational institutions were invited to participate, as the primary focus was on organizations providing social welfare and counseling services.

Nine respondents held the title of executive director, while most of the remaining 16 respondents worked as a program director, often of their agency's main service to clients. Number of years of

experience as an administrator ranged from one to 25, with a mean number of 11 years of experience as administrator.

Because the respondents were chosen purposefully--to understand the phenomenon of intuition--rather than randomly, generalizations for all human service administrators cannot be made.

Findings

Findings of the study are presented in this section. Direct quotations from the interviews appear "set off," a different respondent for each block quotation.

In Chapter III the process for coding, organizing, analyzing, and interpreting the data was described. Findings were then organized into the following categories, which emerged from the literature review and the data analysis.

1. Respondent's understanding and use of intuition
2. Four stages of intuition
 - a. Preparation
 - (1) Experience, history, and familiarity
 - b. Incubation
 - c. Illumination
 - d. Verification
 - (1) Scenario writing
3. How interactions enhance intuition
 - a. Respondent's descriptions of picking up clues
 - b. Relationships

- c. Group process
- 4. Applied intuition
 - a. Hiring decisions
 - b. Personnel and supervision
 - c. Ill-structured problems
 - d. Other types of problems
- 5. Organizational climate
 - a. Negative attitudes toward intuition
- 6. Trust in the quality of decisions using intuition
 - a. Trust
 - b. Control and risk
 - (1) Control
 - (2) Taking risks

Respondents' Understanding and Use of Intuition

At the heart of this study are the respondents' own perceptions of their intuition, their own qualitative descriptions of intuition. To set the stage for further exploration, the interviewer began by asking what words, images, or metaphors came to mind when the respondent thought about intuition.

The most frequently mentioned phrase was "gut feeling" or "gut-level feeling," with at least two-thirds of the 25 respondents using one of these terms. Some illustrated the meaning of this phrase for themselves by pointing to their midsection. An inner process,

associated with gut feeling or with feeling in general, was explicitly or implicitly connected with intuition.

When I think of intuition, I think of making a decision in a sense based on your gut-level thinking, where you may not have in front of you or be thinking of a lot of facts and figures, but just kind of your feeling, kind of your gut-level feeling about something.

The feelings that come most from inside of myself. . . I tell people to go with their gut feeling or what's really happening to them inside of here.

If my head says one thing and my gut says something else, I'll generally trust my gut. It knows what's going on better than my head. That is my general mode of operation. It's also a whole lot more fun.

A little bit of ESP, a little bit of just going with the gut feeling because there isn't any time that you're going to have 100% of the information to make a decision on.

Others talked about "common sense," "common-sense instinct," or "having a sense of things" as apt descriptors for their intuition.

Your inner being plays the primary part in making the decision. . . . You are guided or directed or compelled by your common sense or your intuition. . . . It's a combination of your common sense, your intuition and your past experience. . . . If you don't use your common sense or intuition and purely rely on education information and maybe some life experiences, you may not make the right decision.

It's just a sense of internal mechanisms at work that are not connected to thinking or the rational process.

Intuitive people often use metaphors to communicate their thoughts and feelings. Administrators used the following metaphors to define or to describe the process of intuition:

It's an electrical pulse giving you kind of a jerk, or on-the-spot push, or jolt.

The picture of your insides from here to here. It's like pushing it down and letting it roll around and letting it come back. Sort of sending an idea off into the "intuition place."

I'm just trying to roll the scroll, and see who I'm seeing.

Something that sort of grabs me from the back of my head, and says pay attention, or this one is going to bite you on the nose later.

[To set the stage for working on a major project] I clear the decks. . . . I spend a lot of time just really dithering. . . . Then I just begin like a dung beetle that just sort of rolls along.

On any one day, with an organization as big as this one, it is broken someplace. Probably it's broken lots of places. So part of my job is to try to keep it fixed, to see where it is broken, mend it, and also make it grow, and make it grow in a certain direction. So you have a tending process; you've got a growth process; all goes on at once.

It is sniffing the wind. What is the political situation both internally and externally?

Several administrators used metaphors related to painting, in terms of focusing on the big picture or the specific details in the picture, and in terms of being an artist at work.

I could be the one who puts it together and paints the bigger picture.

That's the next place to move the brush on the canvas.

An administrator has to constantly see the different pieces. They have to be able to see and to have that sense about how does this fit into the broad picture? How is the picture changing? What is behind the picture that may be coming forth? It's like an artist at work. . . . For an intuitive person, it's like conducting an orchestra; it's like painting a picture; it's like the artist at work to lead an agency.

Another strong theme in the data linked intuition with "picking up clues," or "reading people" to understand what other people are feeling and thinking, that may not be explicitly expressed.

Reading the group, reading the people, going with the feelings.

Some of that you get by listening to other folks, or observing, or sensing when they are ready to move in the direction that you need. But some of it is timing. It is a matter of waiting and gathering all of these other peices of information, besides just the facts. I think intuition is a matter of not jumping in, just taking the time to listen and to pick up other pieces of information that are important.

Asking respondents to share how they recognize, characterize, experience, and report intuition addresses one of the purposes of this study, which is to build knowledge about intuition.

Inherently, talking about intuition poses a problem, since intuition is an inner process or a gut-level feeling which loses something in translation into words. In her research on intuition, Truax (1985) noted, "It is impossible to verbalize the pure form of the intuition, since it must be translated into a cognition, thoughts, and words" (p. 89). Several respondents noted this awkwardness. And yet, a purpose of this study is to discern and report "how people construe their world of experience from the way they talk about it" (Frake, in Patton, 1987, p. 151).

From the diversity of experiences with intuition, respondents articulated definitions which included (a) body sensations and particular body locations for their intuition, especially gut

feeling; (b) sense or common sense; (c) metaphors, including those related to painting; and (d) skill at "reading" people.

The analysis of the definitions articulated early in the interviews revealed themes which were further elaborated on and developed as respondents began giving specific applications and examples of how they use intuition in decision-making in their work.

Four Stages of Intuition

A central feature of the research was listening for references to and inquiring into the use of the four stages of intuition. Preparation, incubation, illumination, and verification were identified by Wallas in 1926 (cited in Blakeslee, 1983; Goodspeed, 1983; Harman, 1984, 1985) as the four stages of the creative process.

The preparation stage includes the accumulated wealth of information one already possesses, as well as gathering relevant information and focusing on the problem. During the incubation stage the unconscious processes of the mind seem to work on the problem. The illumination stage may happen spontaneously or as a result of conscious effort. Possible solutions to the problem emerge at this stage. In the verification stage, intuitive solutions are logically checked for feasibility and validity (Blakeslee, 1983; Rowan, 1986).

Respondents' answers related to the four stages were sorted into four categories at two points of the research process. During the interview, the researcher checked out examples appearing to belong to a particular stage, which were previously given by that

respondent. After the interview, during data analysis, other responses were sorted into the four categories.

Even when the researcher had not yet named the four stages, some respondents, in discussing intuition, reported in their own imagery that they went through these stages.

For some respondents, the sequence of four stages of intuition was a new awareness for a process in which they had previously engaged. For others, the stages felt familiar and comfortable, even though they may not have used all of those labels. A few had a strong conscious awareness of one or two of the stages, and identified less with the other stages.

Virtually all intuition was preceded by the preparation stage, with a variety in how the administrators experienced preparation. Over two-thirds of the respondents verified their awareness of moving through two or more of the four stages, providing empirical support for previous research on the four stages on intuition.

Preparation

Several respondents reported consciously gathering material and ideas as preparation for working on a project or an ill-structured problem. Several others spoke of frequently reading a wide variety of journals, current-event materials, and other nonfiction and fiction, as a way of storing up ideas and information which might be important or useful later.

I do extensive reading in my field with lots of magazines and journals and publications.

The interesting thing is, when I face a problem, my tendency at first is to go out and start reading things that are somewhat related. But I want all this information at that point, even things like I'll go and start reading strange esoteric things or talking to people. It drives people wild, the people I work with. It's like "Let's get down to the task." "No, no, no, we have to do this other thing first!"

When attacking a problem or an assignment, or I have a paper to write. . . . I gather all kinds of stuff, and read it, and then it just goes completely out of my mind, out of my conscious mind, and I don't think about it. I don't sit around and say "What does that mean?" That's not what happens in my head. It disappears into some other level than an internal verbal level. Then it reemerges pretty well set. I don't really know what goes on in there, but once it reemerges . . .

Those administrators know, at some level, that the extra reading material contributes to an enriched knowledge base for their decision making. This finding confirms the work of Westcott (1968), Bastick (1982), and others who showed that in the intuitive process, the mind links the present with memories, a data bank, and old familiar patterns.

Experience, history, and familiarity. One-third of the administrators discussed the role that their accumulation of experience and familiarity with an issue plays in decision making. Most of those respondents included knowledge from the past as an important component of intuition.

A feeling based on knowledge; experience and feeling that brings you into a position to make some kind of decision. After you have assimilated all of the facts and information possible on a subject or problem. . . . It is maybe a combination of just a hunch, common sense, street smart, savvy.

I think it is a synthesis, and it's not necessarily conscious. But it is a synthesis of all kinds of information that we have.

Intuition is more based on the instinct plus some sort of experience. . . . I do think it is this history, or there is some stuff that has occurred before, that this intuition is based on.

I don't think you make or pull a decision out of the air. I think intuition reflects a lot of your prior experiences that have molded your values, how you think, the problem-solving processes you go through. Intuition, I believe, is a decision that you are drawing upon a lot of prior work and life experiences that mold a way of thinking or impact your thought processes. . . . There's a part of me that thinks good intuition is somehow tied to maturity.

It's based somewhat on an experience base with [specific] people. . . . What my intuition is based on is my experience with that person, and so when I'm experiencing intuitively, that here is something that needs further work, it's really based on some experiences, many of which I may not remember consciously. . . . I suspect behind a lot of intuition is a lot of experience base.

By contrast, two respondents labeled their prior experiences as something other than intuition. They shared their awareness of the integrated nature of their decision making, and of the need to use objective data that can help explain their decisions to others.

I tell people that it is based in part on a hunch, because a hunch implies, I think, if you have some experience in a field that a person's hunches are fairly educated guesses almost by definition. I'd be pretty uncomfortable saying that I made a decision just based strictly on intuition. I think that is because my own bias is that intuition isn't as strong a basis for decision making as objective data.

I'm relying a lot of times on things other than intuition because I'm relying on past history with that person and past behaviors with that person.

Whether or not they labeled prior experiences as part of their intuition, these two respondents clearly valued this storehouse of knowledge which helped in decision making. They consciously or unconsciously chose experiences to add to their knowledge base, which might be useful in future decision making.

Incubation

Some respondents deliberately set up a quiet alone-time for incubation, when, based on past experiences, they anticipate that some good alternatives and solutions may emerge.

I spend a few minutes relaxing, clearing my head, maybe doing a few phrases, a kind of a cuing process to settle things down, clear that chatter out. . . . I have all that much more problem-focused, action-focused stuff in my head that I have to shut down in order to get more intuitive. With the intuitive side, it often means I have to do that with periods of time that aren't going to be disrupted. I need to set aside some structure on it so I'm not getting interrupted with phone calls every now and then that kick me off into the more analytic stuff or having to deal with a concrete situation. . . . The last couple of hours before bed are the times when I spend most of my creative time, having the time to just think more, rather than responding to things so much.

I try to get to work early and make myself a list and try to prepare myself for the day. I get there before the rest of the people get there, so I have some time. Otherwise, it can become meeting, meeting, meeting, and in between meetings, a person or two needs something to be dealt with. And so I get on a treadmill and don't get off until it's time to go home. So I try to get there early, and that's time for me for a little bit of incubation, and it's also time for preparing myself.

I find it real hard to do any constructive thinking in a group of other people. I have a hard time sharing an office with someone, because there is something about that that for me, it just really blocks thinking. . . . I remember in some of the MSW classes, we'd break into those

little groups. And the professor would say, "Now solve this." I couldn't do it. It is a funny situation. I need that time to myself whether it is walking, treadmilling, or whatever.

I very seldom come up with bright ideas at work. I think you just get too much into the day-to-day routine and it's like you got work as a groove, routine and predictable, and in order to see things more holistically and make a leap to a new way of thinking, you got to not be here!

Those administrators know the importance of providing private time for the process of intuition, time for the mind to work and to create or discover good alternatives and decisions.

Some respondents were consciously aware of how and when their insights flow in the incubation and illumination stages. Others seemed to be sorting it through, or discovering the patterns, as they talked. Predominant themes in the interviews related to allowing time for absorbing clues and information, and allowing time for incubation--the need to defer decisions, to encourage an intuitive and perhaps verified result for individuals and for the organization.

We've always thought it was important to discuss things enough, or to let things sit enough before we had to make a decision. . . . I think a key part of this is time. That time to let it just sit back there and do whatever it's going to do is pretty necessary.

Illumination

Respondents described the variety of ways in which, after allowing for incubation, they discover new information, missing pieces, and "Aha!" experiences.

You let it sit there for awhile, and wait for connections to be made. But I can't chase it. Some part of yourself will make some connections. Then it will jump out, with little rays of light around it. . . . It's like the lights are shining, the bells are flashing. "Look at that!" See, I'm real visual. So I see this idea and I see the lights.

[Incubation and illumination] frequently come to me when I meditate, which I do in concert with exercising, strenuously, and frequently at the end of a long run or during a long run, I'll have a fair certainty as to which direction to go in a situation. I figure that that's just my right hemisphere kind of mulling it over and giving me an answer or direction, and then I check it out.

I need that incubation time. You start out with something, and you have a thought as to which way you're going to go with it, and you let it brew for a while. And then you come back to it a little later and think "Now where am I with this? Have I got some new thoughts, what other ideas have come to me in the meantime, what kind of feeling do I have about it now, is there another resource?" I'll find a lot of times I'll pull resources, but different places that normally my logical mind wouldn't tell me I should go to.

Some people, when busy with other activities, are aware that their mind is working on a problem to be solved.

What happens is being involved in some other activity. So in a sense I have detached myself from whatever the issue is. While doing other things, I would find myself sort of in a back room, messing around with the stuff even though I wasn't working on it. I was very conscious of it. . . . Maybe when I wake up in the morning I'm halfway through a sentence that obviously I've been working on before. . . . Many times I'm in a meeting doing something over here, and I'll say "Oh, wow!" and make myself a little note to get back to it or drive it around. . . . It keeps me at a fairly stressed level.

Several spoke of a particular time of day or night when, not consciously working on a problem, their best ideas pop into their heads.

Probably my best ideas have been at 2 a.m. I always laugh about that. I used to get some wonderful ideas and usually I would wake up in the middle of the night with it. I used to keep a little pad and pencil next to my bed in case an idea came to me.

Early in the morning, in the shower, or when I'm shaving. But that time of day definitely. And that's also the time of day when things come together that I've been stewing over, mulling over. That's when I make decisions often. I would probably delay a hiring decision, for instance, until the next day, because I'm aware that that is the time when I make decisions. . . . You start thinking. Those things that you aren't really conscious of start bubbling up.

I'm a middle-of-the-night kind of person. Or, group discussions are also real helpful to me--when a group works on an issue together.

One respondent talked about how she goes through the process of the four stages (preparation, incubation, illumination, and verification) when she and a colleague prepare for a training event. The interviewer had asked, "When do you get your best ideas?"

When I'm tired. Generally, at night. It usually takes us two nights [to plan a training event]. We'll start with a lot of information gathering. We put all our books and articles together, which may or may not be relevant, and we talk about things that may or may not be relevant to the training, and then we start talking about concepts. What tends to happen is between 10 or 11 at night, or midnight, and I think this is probably our little biological clocks, suddenly, things start coming together, and all of a sudden you'll get that intuitive experience, all those ideas start going!

For some respondents, illumination happens as a quick revelation, and they spoke of trusting this flash of insight.

I had this light-bulb experience.

Quick things. A lot of times I'll find I don't exactly know why or how I know something, but I know the answer, or I feel like I know the answer. If I go with it, I've learned that I'm generally in a much better

position later on, than if I've ignored it, or if I've gone some other long-distance way. I do just as well by going with the first thing that hits me. A lot of times I'll sit back and think later on, "Why did I do it that way? What was it that led me?" I don't often have an answer. But it seems to be something. The more I trust it the better it serves me. Which is kind of scary sometimes, because not everybody else understands that. Ideas start emerging. Things start popping into my head, usually in big chunks. In some instances, it's like a conclusion. "Well the obvious answer to this is. . . ." Other times it's more an outline. "OK, here is how we attack this." It's just there and I have to go fill it in. That's where I can draw on all of the other stuff. It also feels right. It's calm. There it is.

That's where it all comes together, and sometimes that is a singular kind of experience in terms of the old "Aha!" event. Or at other times it is like a chain reaction, and that's when I get so excited I can't stand it. It is like all of a sudden this one little piece falls together. And suddenly I can see how it's all connecting as it comes together. In some sense, it is some slow-motion version of what happens with "Aha!" or seeing it play out on different levels.

Administrators who pay attention to their pattern of discovering intuitive insights are able, and often eager, to describe the process. During the interview some respondents made new discoveries about their own patterns and preferences, and about what works well for their decision-making responsibilities as an administrator. The patterns disclosed by respondents, related to incubation and illumination, validate the work of other researchers on intuition (Agor, 1986; Blakeslee, 1983; Rowan, 1986; Vaughan, 1979).

Verification

Respondents spoke in a variety of ways of the need to check out their intuitive ideas before acting on them, of the fourth stage:

verification. Many routinely run their ideas past colleagues for feedback.

Verification would have to do with talking to the people that are involved, the various recipients.

I usually have people whom I call "consultants" in different areas. Depending on what the nature of the thing is, I go to different people and talk with them about it. They are people I highly respect, and [I] value their opinion in different areas. . . . If they do see something that they think should be changed or if they see something they think should be challenged, they do.

I always think of the last stage, the verification stage, as application or operationalization. The verification process is influenced by concern about others'

need for "proof" or concrete facts to document the decision or recommendation. And some respondents expressed caution about trusting intuitive thoughts and feelings.

You have to check it out by inquiring further. I think you can trust it, but in a lot of our cases you can't go by your gut-level feeling. You're going to have to build on it and come up with the facts if you're going to prove something in court. So, you may have a gut-level feeling that something is not right, but you can't approach a legal system and say "My gut-level feeling tells me this." You're going to have to have documentation, so you're going to have to check it out further.

I think you have to be careful. I don't think it would be wise to use just your intuition or your gut level when all of these other facts are facing you. You have to think "This is a feeling I have, these are the facts I know, and how do they blend?" So I don't make, I try not to make, a lot of decisions based upon my gut, but also try to listen to that too. That too is a balance.

While they may not have consciously used the label "verification," half the respondents discussed a need for some kind of "checking-out process." During this stage, the intuitive insights are checked for goodness-of-fit with other known facts or

constraints. "Scenario writing," or imagining possible outcomes, is one way of anticipating others' reactions.

Scenario writing. Another theme which emerged from the respondents' experiences with intuition related to scenario writing: anticipating best-case/worst-case scenarios, imagining the consequences, visualizing the possible outcome, or mentally reviewing other knowledge they possess on the issue.

I'm constantly playing it out and trying to see the consequences and trying to always modify, so it is a fairly active thing.

When it all comes together like that, I know it is right. But I always want to test it. One of the ways I'll do it is to try and think of the most difficult horrible circumstance that could happen related to the decision. So, if it's something organizational, what would be the worst possible thing that could happen, and how would that decision that I've made or that insight I've had affect this horrible thing that is going to happen? Then I try to take it apart and pick at it, pick at it, pick at it. If it's been something that's come together well, it stays whole. Or, I'll pick out a piece of it that we can modify a little. Part of that I'll do alone, but I enjoy doing it, and I think I probably do it better, when I do it with other people. . . . Get them to sit down and just play around with it.

Going beyond the gut level, then you call in your other knowledge, and other information, and your life experiences, everything playing into making a final solid decision in that particular case or situation.

Others deliberately rehearse important future events related to their decision or proposal. For example, some respondents imagine or anticipate possible negative reactions to an important presentation--best-case/worst-case scenarios--and mentally rehearse how to

handle those objections. Others visualize themselves appearing competent and well prepared as they make their presentations.

I visualize the situation that will be coming up. Like I will play out the board meeting in my head. I'm going to have to present this issue, and I must be somewhat uncomfortable about it, because I feel the need to review the whole thing. So maybe that is the intuition. It's like the gut feeling is "Watch out, danger ahead!" And then I say, "Let's work it through." So then I go through the meeting. Here's my presentation. How are people going to respond to that? And I wait for the responses from me. It's like I'm playing the scenario through. When I experience some anxiety, either through my breathing, or my stomach, or something else as I'm playing it through, I think, "Oh oh, there's the spot." And then I make mental note of that, and go through the whole thing, and the spots I go back over. . . . "What's the problem there?" The problem is probably that so and so isn't going to like that for the following reasons. "What would satisfy so and so?" I work through each of them, and problem solve around it. I try to go beyond what is the feeling that I'm getting that is apprehension or danger, and then try to make clearer the actual source of that.

The respondent quoted above goes on to discuss the potential problem with others, perhaps call a meeting, and develop scenarios to satisfy the concern. Anticipating possible problems and visualizing possible solutions allow her to manage the presentation more effectively.

I use my intuition in thinking about who am I presenting this to, what do I think it is they want to hear, how would they like that to be presented, what's my gut feeling about that?

I'm a big believer of imaging and in positive thinking. If I have a situation that is going to be tense, or that I feel I have some concern about, I will spend a few minutes thinking it through ahead of time, trying to be as prepared for it as I can be. . . . [Imaging is] playing out the situation in my mind, the way I think it is going to happen. Visualizing what the room is going to look like, who the people are in it, if I have a sense of a lot

of people or just a small group of people, that there will be friendly faces. And seeing myself doing it in a positive way and coming across well. It works! It really works!

Since over two-thirds of the administrators talked about their awareness of how they progress through some or all of the four stages of intuition, the data give strong support to previous research. The data also point to the value of "scenario writing" as a method of verification.

How Interactions Enhance Intuition

Most respondents reported that their use of intuition in decision making is enhanced through interaction with others. These findings agree with Mintzberg (1976), who asserts that high-ranking managers prefer face-to-face encounters over written communications, as the interactions provide opportunities to pick up clues from body language and nonverbal cues.

Respondents' Descriptions of Picking up Clues

A strong theme among respondents as they spoke of using intuition was their sensitivity to clues in the interpersonal environment, their awareness of spoken or implied messages that provided additional insights, and their attention to nonverbal cues, beyond explicit words and expressions. At least two-thirds of the administrators discussed how they watch for and learn from subtle pieces of evidence that lead them toward using intuition for effective decision making.

Reading people's signals that they send . . . folks are a lot more than what they say. . . . Reading their affect. Affect says a lot to me. It's looking at feelings, facial expression, tone of voice, the way their body moves.

It's intuitively reading people and reading behaviors--nonverbal behaviors--or reading between the lines of words.

Nonverbal expression. . . . in terms of posture, voice tone, facial expressions, more specifically the way the eyes--how eyes are held. Does the person hold their head to one side or to the other side? Is the eye contact somewhat evasive?

Respondents commented on the discrepancy between verbal and nonverbal messages. Their noticing this uneasy feeling often signalled the need to pay close attention to the people and the environment.

You're getting this gut-level feeling that something is not really clicking here.

I've learned to rely on hunches. If I feel uneasy about something, I try to work with it and pay more attention to it.

You kind of know if they're going to [follow through] or not. Even though they may be saying one thing, you kind of know, and you say, "I guess they're not going to do anything."

Respondents spoke of absorbing the clues and information, by paying attention.

I soak up a lot of stuff that later gets used.

Intuition has a lot to do with me being so tuned in to what is going on around me that it tells me what to do.

It is a skill in that you are taking the time to pay attention to it, you listen to or see whatever is there, and you pay more attention to it, and sometimes you verbalize it or act on it.

It's data collecting, all the time. How can we do it better? How can we just do it?

Intuition implies something mysterious, I think. I don't think it's mysterious at all. I think it's a matter of common sense that you listen, you look, you watch people, see their reactions, you can read them, how they look, and you can listen to what they say, and you hear what they say, and sense how they feel, and you pick up information in that way.

The eleven respondents just quoted, as well as at least five additional respondents, described how they "pick up clues" by paying close attention to what goes on around them. They may have developed a hypersensitivity to nonverbal cues or other behaviors, to hunches based on partial disclosure by an employee, or to an employee's reaction to the administrator's actions or behaviors. They are then able to add this subtle information to other more overt data, as they make decisions about courses of action. This agrees with Josefowitz (1984), who stated that intuition is "an exquisite sensitivity to picking up patterns and minimal clues, storing them for future use, and then acting on those observations" (p. 12).

Relationships

Respondents value interactions and relationships as an opportunity to pick up ideas, brainstorm together, bounce ideas off others, and gain new insights. The benefits of interactions and relationships appeared especially during the preparation and verification stages of intuition, and the interactions may stimulate additional insights during the incubation and illumination stages.

I don't know about other people, but for me, talking with other people is a very important piece in the gathering of information, and then also validation.

I think that relationship for me is a real stimulus for intuition, the nature of that relationship.

Respondents identified listening to others as an important skill and tool. This relates to the value they place on interactions and relationships as a way of gathering important information and feedback.

Got to be a good listener.

I take the discussion seriously, interaction. I don't approach a project as if I know the answers, and this is a means for me to get the project carried out. I think, I go in and listen, and observe, and synthesize, not analyze.

I listen to reactions; I wouldn't dismiss a reaction.

One respondent uses intuition to "watch for a reaction" from others as to his own behavior.

The sensitivity to use your intuition to see how you're coming across, and not being afraid to check that, when that person is there.

In this study, both introverts and extroverts spoke about the importance they place on talking with and listening to other people, as a means of making better decisions at work.

I'm an extrovert, so I'm apt to find somebody to talk to. I will talk to another manager, and say, "I'm seeing this and this, and I'm wondering if this is going on. What do you think?"

I tend to view the introvert as having more intuition available to them than the extrovert. I'm probably using that more in the Myers-Briggs [Myers-Briggs Type Indicator] kind of definition of introvert/extrovert. [Said by a person who considers herself an introvert.]

[An intuitive person is a] people person, someone who is sensitive to others, who understands other people, an outgoing kind of person.

The data confirm the respondents' belief that the whole is greater than the sum of the parts, and that no one part, no one person, can possibly have all the information or all the insights.

I don't make decisions in a vacuum. When I make decisions in a vacuum, I'm wrong more times.

Clearly I can't be operating in a vacuum.

I think I do [the best discovering] when I talk with the people that are involved because it has to do with that brainstorming kind of stuff. And then I know what they want to contribute, I know what they would like to see. And in a subjective environment, in terms of human services, I can capitalize on those kinds of contributions. . . . I think that those lights come on more often when we're talking about it, talking about options, looking at all the various options.

When the administrator is talking about one topic, information on another issue may emerge. Several respondents noted the value in staying open to what else they might learn during interpersonal encounters, as a significant insight or piece of data might emerge from the discussion.

In talking to people, somehow things will come up that are very relevant. Then you can take that piece of information and transfer it into the thing that's incubating back there. It's kind of interesting. Sometimes it's almost fate how you come up and the discussion develops. "Hey, this is what I need for that problem." It won't be a discussion of that very issue, but something that's relative or can be transferred to it.

I like to interface. I like to listen not only for the issue that I'm discussing--say for instance I'm talking with the outpatient program director, and we're talking about day treatment. He'll mention something about the residential program or some of the aftercare issues. The tone of his voice when those little things

come up is extremely important. . . . Those are things that I need to pay attention to, even though we may be talking about day treatment. . . . We can be talking about one issue, but my mind is on three or four perhaps. And that's not to say that I'm not listening. I think the human mind can listen to a whole lot more than we give ourselves credit for sometimes. We have the capacity to absorb.

I find a lot of times I'll pull resources from different places that normally my logical mind wouldn't tell me I should go to. A lot of times I don't know why that is, that's why I think it's intuitive, because it will be like I should talk to this person. I don't know why, but somehow it's related to what it is I'm trying to solve. I don't exactly see the direct connection, but let me just talk with him a little bit and see if I can't find it. . . . Whatever it is that person is talking about, all of a sudden I'll find a relationship back to whatever it is I'm trying to solve or trying to understand. So again, I'm not sure what part intuition plays in that, but it's involved with creativity too, with allowing that time to brew and being open to those ideas or those suggestions and allowing myself to see the relationships where other people wouldn't see them.

This openness to the emergence of unexpected information may be one characteristic of intuitive people that gives them the additional data on which to make wise decisions.

A few respondents specifically mentioned the importance of having an "open-door policy" some of the time, showing that they are easily accessible and not too busy to take time for an employee. The Peters and Waterman (1982) concept of managing by wandering around (MBWA) was also mentioned.

I am just aware of when people have the closed-door policy to their office--the risk of what they're missing by not communicating with a lot of different people. They miss some information, and I think they get a narrower perspective and are missing some things.

Important ideas, insights, and feedback may be missed if administrators are too busy to interact with others and to build a network of valuable information sources. Much of the sensing of these people who use intuition comes from checking in with the people in the workplace; finding out how they're doing, feeling, and thinking; and getting their opinions and ideas.

Group Process

Almost half of the respondents said they value group process as a stimulus for intuition.

I think often those hunches for me are facilitated by a group process. I think somehow intuition in that more spontaneous side often gets really stimulated by a group interacting around those kinds of ideas.

The people that I work most closely with, we're able to do some of that together, to use some of that intuitive approach. This is the only place I've worked where I've had the opportunity to do that. So in a sense it becomes a group experience.

A frequently mentioned theme related to balancing different styles in a task group--balancing the intuitor style of some members with other temperament styles (thinker, sensor, and feeler) needed to effectively problem solve and accomplish the work. This related both to hiring the right mix of people and to staffing a committee with people with a variety of styles.

There is a great deal of value placed on bringing people together who have different backgrounds, different perspectives, different knowledge bases, and providing a way for them to share those differences, those different perspectives, knowledge, feelings. There's a lot of permission in a committee meeting. . . . Somebody says, "I

just have this gut feeling that. . . ." and that is paid attention to by the other committee members.

I've got lots of strengths, but there are some weaknesses there too. And there is the intuitive part that says "look at the reflective part, what am I weak in, what can I do, what don't I like to do?" It's OK; I'm in a place where I don't have to do things that I don't like to do. I've got other staff who can do it.

That's part of what's been so good about this place. The fact that we haven't had to all blend into some kind of homogenized style, but that those differences can be valued.

I try to assess where they're coming from in making that decision, what basis they're using. But once you've worked with someone for a while, you come to understand how they make their decisions too. If you know what their style is, and you feel comfortable with it, I think the tendency is to let them go and make their own decision more often, more of a trusting thing.

The intuitive administrators realized the value of respecting the decision-making styles of their colleagues, and the importance of allowing a range of styles to contribute to the decision-making process. This can result in synergy, where the combined action of individuals results in a better decision than the sum of individual efforts.

Most respondents in this study believe that interactions with others enhance their use of intuition. This finding validates the work of Albrecht (1987), Ramo (1988), and Westcott (1968), whose research indicated that interactions in the workplace and with other key people contribute to intuition, creativity, and innovation.

Applied Intuition

Hiring Decisions

The most frequently mentioned application of intuition by the 25 human service administrators relates to the hiring process. More than half talked, either in general terms or in reference to specific hiring situations, about the trust they place in their intuitive sense of the "rightness" of a particular candidate. Some related instances of awareness of an uneasy feeling about a candidate, which led them to investigate further before making a hiring decision.

Two respondents spoke of their ability to pick up clues during the first few minutes of the job interview which led them ultimately toward hiring decisions which have worked out well for their organizations.

I use my intuition in hiring people. I am rarely, rarely wrong. It's like "walk in and say three words. I know if you'll do a good job or not." When I go against that and hire somebody who says all the right things, has all the right papers, and my gut feeling is "something is not right with this person"--problems!

In the interview process. . . . you have had a first impression. You have had no solid, substantial information to come up with the first impression, yet you have created a first impression. How do you arrive at that? I think it is probably based on your intuition, or common sense, or your gut-level feelings, or whatever you want to call it.

Other respondents talked about the importance of checking with others before making a hiring decision. Even when their first impression sent a strong message toward "hire" or "don't hire," they wanted to involve others in assessing the applicant. The first

respondent quoted below took the opportunity to discuss her apprehension with a trusted professor visiting the agency, and received confirmation from the professor that indeed that particular person "would have been a real problem in terms of hiring."

I interviewed many candidates and found somebody that had excellent credentials on paper, was giving all the right answers, and was nonverbally appropriate; I pay a lot of attention to that in interviews. But the more time I got away from the interview, the more my concern and apprehension about the person grew. I was mulling this and trying to figure out how I could approach this in another interview, how I could start talking about the fact that I had had this strange feeling about this person that I did not like.

Other respondents routinely involve other people in the hiring process, either as references are checked, or in a subsequent group-interview session.

I don't hire people without talking to references. I don't hire people without seeing them more than once. And I also rarely if ever hire them without having other people's opinions. So there is a group session that usually I bring people back for. . . . I have learned to trust my gut-level feeling, not the first impression. . . . That's why I listen to other people's advice before I make a decision. But having done all that, I've learned to go with my real strong feeling about a person. I go with people I like.

Several respondents addressed the potential for an applicant's "fit" in the agency. Administrators gradually and subtly accumulate information about how the work of the organization is accomplished, the decision-making styles of current employees, and work styles which can result in effective service delivery to clients. They bring this background into the hiring interview as they assess,

among other characteristics, the goodness-of-fit for the candidate and the organization.

I think people talk about intuition a lot when they're hiring somebody. You can have all the facts there, either in the resume or in response to your questions, but then there's another level that says "Hey, this person is really going to fit here." It might not be a factual thing.

Intuition plays a "bit part" in the way I view the tone of an agency. I know that my intuition tells me a lot when there's a problem or there's something that needs to be dealt with. So consequently when I'm trying to hire people into that role [management team], one of the things that is very important to me is to feel where that person's tone is and see how that is going to mesh with everything else. A lot of times that only comes from inside. It's not something that you can assess logically or by looking at qualifications on a piece of paper. That's not going to do it in and of itself.

In the final analysis, it is feel. All things being equal, how do you see this person fitting with me, fitting there, how do they convey, present themselves at that feeling level?

I trust my abilities to interview prospective people. One of the keys for me is what vision do they have for what they want to do. If I find that they have a somewhat shared vision for the population we're working with, that says to me "OK, how might they get us there?". . . . There is no one right way to do things. My goal is to get us down that road so the vision is accomplished. . . . The feel for me is what is important. . . . But if I get negative feedback in that process, I try very hard to say "What is there that happened that made the hairs on the back of my neck start to stand up and say 'Something's wrong here, there's a bad feeling here'? Where did that come from? Let's give this person the benefit of the doubt; let's poke around some more."

The respondent quoted above told about choosing home providers, comparing an established home-provider corporation with a new home provider, "an untried entity." He continues to describe the process:

The new person buys into the vision clinically and therapeutically better. So again, intuition tells me, plus a lot of references, plus a lot of other things, "Take a risk."

A respondent who participates in group interviews for hiring related how her boss uses intuition to pick up clues that might otherwise go unnoticed.

It's amazing sometimes how our boss will come out with a question that you think is off the wall, until you get the answer, and he zeroed right into that person. Like asking, "Did you ever have a problem with alcoholism?" And the person will look real surprised and say, "Yes."

One respondent talked about hiring an applicant who would need to work effectively with a sometimes-difficult staff person. He summed up his hunch that the applicant would work out well in the position by saying, six months after the hiring, "My hunch was correct." Another respondent described her experience of finally hiring someone, because she couldn't rationally explain, with concrete facts, her strong negative intuitive reactions to the job applicant. "It was a disaster."

Administrators in this study trust their intuitive insights in the hiring process. They have learned both from successful outcomes when they attended to their hunches, and from unfavorable outcomes when they disregarded their uneasy feelings and hired the job candidate.

Personnel and Supervision

One-third of the respondents talked about the usefulness of intuition in working with their staff. Administrators and

supervisors increase their effectiveness through interacting with staff informally, picking up clues about unspoken or disguised thoughts and feelings, and seeing problems before others verbalize them.

I use my intuition all the time. I run on it. I supervise a lot of people, and I know intuitively when things are not going right in a certain area, whether the person tells me that or not. A lot of times I know what it is even though I have no factual basis for that. But I know that the units are down, or that the cases aren't closed, or that this person is having a particular problem with another employee that they don't want to tell me about because they want to take care of it first. I don't always know exactly what it is, but I can usually tell because I know my people really well. I read people well, and that's intuitive. So it's a matter of asking questions to get the real information. But I have the sense that something is going on.

Sometimes you have a feeling that a staff person isn't doing well, but I don't know if that is intuition, or just picking up signals from that person. But then, maybe that's what intuition is: picking up signals that you can't really identify.

I think I catch on to what's going on with staff before they ever come up and say, "This is what's going on with me." It helps me to be a better supervisor. I can say, "I'm wondering if you're having difficulty with this particular issue," because I've seen these things and I just have a gut feeling there's more going on.

It is knowing your staff, knowing how they operate under stress, and knowing when perhaps they are being stressed. I think a lot of that is gut level. They may not come out and tell you, but you can tell just by feelings and how they are reacting, and therefore you're needing to approach them, and check the information out with them, to see if your gut-level feeling is telling you that something is bothering them.

Another respondent talked about her ability to anticipate a staff member's desire to move on to other responsibilities or to another job.

I have to laugh, because I don't think there has ever been anybody who has quit staff here that I haven't known at least two full months ahead of time. . . . I have a person on staff who has been a staff social worker for several years, who I got the impression, intuition, was not real happy here.

The respondent quoted above, through her impression, her intuitive awareness, approached and talked with the worker about how they could vary the job, until another career opportunity became available.

Ill-structured Problems

At least four respondents verified the usefulness of intuition for solving "ill-structured problems," which Silverman (1985) defines as "neither routine and well-defined with standard conditions, nor easily solved by immediate application of well-known procedures or decision rules" (p. 29). In human service administration, many issues related to program development, funding, and delivery of services to clients can be described as "ill-structured problems."

You rarely have all of the information and first-hand experience that normally you need to rely on. I think in a sense intuition is then like a shorthand in terms of problem solving, because you don't go through all the details and all the steps, and in a sense they become fairly unimportant because you can't have them first hand.

One respondent talked about his tendency to gather all the available information on a project or problem, and then to make the best long-range decision he could:

Sometimes the data is so unclear that you just have to go on what you think is the best approach, or the best guess, or what I would like to do in this situation. . . . My intuition told me. . . . My gut-level feeling said. . .

. So I made a gut-level decision. . . . You do a lot of things by the seat of your pants. You may never tell people that you do. It is like flying an airplane treetop high. It is dangerous, so to speak. But in a place like this, this is not IBM, Ford Motor Company, or this is not some large corporation where I'm getting all kinds of intelligence reports, financial reports, and everything else that helps me make a good sound decision. You have to operate a lot on feelings--where you think things are going and your observations about them.

Other Types of Problems

In addition to using intuition in hiring and personnel situations and for solving ill-structured problems, respondents reported a variety of other applications for using their gut-level feelings or hunches in making decisions. One example is program development.

I think intuition sometimes is used in new program development--if you want to try to figure out a new way of impacting more effectively on people's lives. A new program is probably based in large part on intuition.

Another respondent talked about a program with which the agency struggled.

The more I worked on that, the more we thought about it, in fact, my gut kept saying, "This is not a program I should be doing. It is a program," my gut kept saying, "that is going to cause this agency more trouble and our clients more trouble than if we just let them try and do this on their own."

One respondent spoke of a decision involving financial agreements with other agencies that had been delayed for several years.

That was a decision that we probably should have made three, four, or five years ago, but the time wasn't right, because you have to bring people to a certain point, you have to get them going in the same direction you are, and sometimes that's a matter of time. Last year the time was right. How I knew that, I don't know.

Several respondents shared confidential examples of situations in which they suspected a worker might be mistreating, harassing, or abusing another staff member or a client, or who might have negative attitudes toward the clients served by the agency. These respondents spoke of the difficulty handling their intuitive awareness that something was seriously wrong, and of the frustration of looking for hard-to-find concrete evidence before they felt justified in confronting the worker with their concerns.

She seemed to be very judgmental about. . . . She thought that those families were taking advantage of the system. . . . My feelings were that she didn't have a good relationship with families. But I wasn't getting that kind of feedback from anybody that there were problems. Eventually I started hearing some things from other people, and so I started listening more carefully. Eventually it reached a point where I met with her, and she admitted that this field was not a field that she was interested in, and ended up leaving.

Another respondent talked with regret about a situation of client abuse by a staff member, where the need "to be able to identify and document" slowed down actions to stop the abuse.

I knew something was extremely wrong, but I couldn't put my finger on it. . . . I could rely on my hunches all I wanted to, but until it could be documented and factual, there was nothing I could do about it. When I got to that point [documentation], it took a matter of minutes to resolve the thing. . . . Subsequent to that experience I've learned to rely on hunches. If I feel uneasy about something, I try to work with it and pay more attention to it than I had prior to that time.

Human service administrators use intuition for hiring and personnel decisions; for the "ill-structured problems" of program development, funding, service delivery to clients; and in situations when a worker may be abusing another worker or a client. When they

cannot "prove" their hunches or gut-level feelings with concrete facts, they may feel constrained in acting on their best judgment. The organizational climate may affect their willingness and ability to take a risk, based on intuitive insights, or to allow, as one respondent said, "alternative ways of doing things or seeing things."

Organizational Climate

Do some organizational settings encourage and enhance use of intuition, while others inhibit creativity, risk taking, and intuition? Three-fourths of the administrators believe that creativity and intuition are indeed affected by the organizational climate, either in positive or negative ways.

At least 16 respondents spoke appreciatively of their organizational climates, which encourage or allow an intuitive style. In some instances those respondents are an influential part of creating that climate. In other instances, higher-level administrators have a good deal of responsibility for encouraging an environment supportive of using intuition.

The value placed on a supportive organizational climate by the respondents is congruent with the literature. In their studies of "best-run companies," Peters and Waterman (1982) believe that these excellent organizations do not depend on rational models of management. Rather, these organizations create a positive environment for managers and employees to trust and use their right brains. And

Bastick (1982) notes that "nonrepressive organizational climates facilitate intuitive thought" (p. 350).

Respondents shared their thoughts about the organizational climate.

A human service agency encourages intuitive thinking.

[An organizational climate of] high openness and trust [enhances intuition].

I'd say that this particular environment is very creative and very much allows me the ability to use my intuition and imaging. I think it's a very advanced or forward-thinking environment. That's not been the case with every place that I've been. I think that's probably why in some places I've been frustrated, because there wasn't the same level of creativity, because there was not that allowance of alternative ways of doing things or seeing things.

[I have] not only the freedom but the requirement to move outside of the boundaries and to create some new things. . . . I think that people in systems [larger organizations, bureaucracies] have a lot of weight on them. Some of it is identifiable, like prescribed procedures you've got to follow, that weigh people down, limit horizons, discourage thinking, not to mention creative thinking, and that force people into not even thinking about alternatives. . . . I don't see many new ideas coming out of systems.

Having worked under two different kinds of systems, I can be a whole lot more comfortable and a whole lot more creative, given some authority [to make decisions]. I really felt like I couldn't make decisions [under a previous "authoritarian" leadership] or go with hunches because you had to have everything factual, and it had to be proven before you made the decision. . . . It's like night and day. Under the other system I shifted into a mode of survival. Just figure out a way to survive. Under this [new] system, it's more like "How do I contribute?"

Two respondents indicated their belief that the work setting wouldn't affect their use of intuition. Both may have chosen

environments which allow them to use their preferred style of thinking and decision making. However, each ended the discussion with a qualifying statement acknowledging (a) some environments may be inhospitable to intuition, or (b) the need for "solid reasoning for that decision."

I don't think the environment can inhibit you. I think you're the only one that could inhibit. You either use [intuition] or you don't, and that's your choice--unless you were supervised by somebody who wouldn't let you use the environment. But as long as you don't have somebody hammering you in the head about it . . .

I don't think any work environment you're in . . . [can] inhibit your intuition. Nobody can dictate to you or tell you how not to use intuition. You use your intuition liberally. You're in control over that. Although when you explain your decision to somebody else, you have to have some solid reasoning for that decision.

These findings point toward the tendency of intuitive people to choose a place of employment where the organizational climate is supportive of an intuitive style. People who look for and find congruence and goodness-of-fit between their intuitive style and the organization appear to feel more satisfied and more creative as they carry out their work.

Negative Attitudes Toward Intuition

At least five respondents mentioned the need to "hide" their use of intuition, or to carefully justify with objective data their gut-level feelings and hunches. This may be a process of having arrived at an intuitive decision, and then backing up to support it with facts in order to sell the idea to funders or a board. A few

respondents noted that in the process of backing up and trying to resurrect how they discovered the creative idea, they may invent steps that weren't necessarily true for them. This "prove it with facts" climate may discourage people who are picking up intuitive information, because they may not be able to provide concrete data.

As noted earlier, Rowan (1986) suggested that understanding how intuition works could decrease the need to "cover one's intuitive tracks or offer some lame excuse" (p. 7) to hide the part intuition played. Respondents shared their feelings about hiding or justifying their intuitive insights.

I wouldn't want to tell the new administrator [several levels higher] that I manage by intuition. That would not be a good thing to tell him, but that's in fact what happens a lot of the time. It's just the way I am.

For an intuitive person, [the need to prove it] reduces their creativity. It's real frustrating. I know.

You have to have a good rationale for your intuition, or you have to be able to explain why you're feeling that way. You just can't go in and say, "I feel this way, so this is what I think we should be able to do." That won't get you very far. . . . I don't admit a lot that at three o'clock in the morning I have this brainstorming in my mind of what could be done.

You had to do analytic massaging of things to come up with the justification.

My belief is that intuition is a primary tool that people use in management. . . . There are those real rigid kinds of managers who are procedurally oriented and micro-oriented and can't see the large picture, who I consider real incompetent. But my feeling would be that all good managers use [intuition] one way or another, whether or not it is consciously identified, or if it is, would it be discussed as an OK thing? I suspect that the pressure would be to present yourself as a kind of data-base, rational, thoughtful, intellectually oriented kind of manager. I hear people say that we need all the facts;

we'll go through them and whatever the facts say will decide. I think that is sort of a [expletive] most of the time.

Intuitive administrators appreciate an organizational climate that allows and encourages intuition and creativity, and that does not have unrealistic expectations of proving beyond a reasonable doubt the hunches, ideas, insights, and alternatives that an intuitive person may suggest. Another issue related to organizational climate is the organization's tolerance for or encouragement of experimentation and taking risks with innovative or previously untried solutions. This point will be discussed in the following section, under "Control and Risk."

Trust in the Quality of Decisions Using Intuition

Trust

The researcher was interested in gathering information on how respondents view the quality of decisions where they use intuition. This turned out to be closely associated with respondents' trust in their "track record" of intuitive decisions.

The quality of intuitive decisions was not easily quantifiable. Respondents had not kept records of past successes and failures, but rather had a subjective awareness of times when their intuition had guided them toward insights leading to useful information. If they paid attention and chose to follow the cues, their intuition led toward good decisions.

I really don't keep records on all of these decisions. They seem to work out. There are some cases where you have a gut-level feeling that it's wrong to return a child [to its birth parents], but because you don't have the legal information or documentation to keep that child out, there's nothing you can do, and the court will make the decision to return the child, and eventually that's going to come back [as an unfortunate decision]. Again, all you have is that gut-level feeling, and it has been pretty true to most points. So, I would say that it's something you need to listen to, and it's something that I think is valid.

I don't think I'll ever perfectly decide about something, but I think I'll be about 90% within the mark as a standard. I feel pretty comfortable with that.

There are those that seem to be a bit more insightful than others and are able to use it to their advantage more frequently, and it seems to be right for them more than wrong for them.

One respondent spoke of the process of knowing when a plan or decision should not be pursued.

It will fall on the wayside if it's not a good idea. Even though we have it written down, if it is not something that we feel good about, if it is not something that is going to really contribute to a solution, it will drift out to the fringes. Because it wasn't there; it wasn't in that chemistry.

Respondents who used the word "trust" implied a lifestyle in which intuition was a natural, unquestioned part of their being, and especially of their style of processing information for making a decision.

It's such a part of the way that I operate, in my whole life, that I don't really consciously think about it. I've learned to trust those feelings and to operate from them. . . . I think my intuition has served me well.

I do trust my gut, generally. Again, not void of other things that are facing me, like facts, hard facts. But I'm not fearful, and I guess that is because I believe I've made good decisions along the way.

Basically I trust my gut as to what feels right in terms of what's going on. . . . That's really the core of my faith, that somewhere inside of me is really brighter than what my conscious side is, and can figure out what is going on, and basically is not self-destructive.

I'll just let what comes to mind first, come. That's what I trust first about intuition, is whatever shows up first is usually the most accurate.

The more I trust it, the better it serves me. Which is kind of scary sometimes, because not everybody else understands that.

This trust in intuition also relates to self-confidence, as a few respondents noted.

I think it's both a confidence thing and maybe it's the confidence that gives the illusion of power to the outside. But there definitely is a power that comes from it in knowing that you can handle things, that you have another sense, or a sixth sense. Maybe that's another word that describes [intuition].

It feels a lot more dangerous to rely on intuition when you have lost confidence. You have to maintain a personal level of feeling pretty good about yourself, or that intuition is real dangerous to use. Because if you are not sure of yourself, then you can't be sure when you listen to that side of yourself. It's sort of telling you "This is the right thing to do." If you've lost your confidence in making the right decisions, then that's probably not a good time to listen to your intuition.

Several respondents noted their awareness of regret when they didn't pay attention to their intuition.

I've become very leery of disregarding it. I have had enough situations where in the past I have not acted on my gut feeling about something. I've been sorry later.

It's just a strong feeling of knowing. Sometimes you sit back and you think "My goodness, how could I be so egotistical to think that I have this answer?" and I try not to get too far off into that. I've learned that if I just go with it, rather than questioning it and saying "Who am I that I have the right?" . . . I usually can check it out and I'm not usually too far off.

The above respondents' statements regarding quality of decision results that followed intuition were a validation of Goldberg's (1983) research:

Those people who always seem to be in the right place at the right time, and for whom good things happen with uncanny frequency, are not just lucky; they have an intuitive sense of what to choose and how to act. . . . We play guessing games with life. Those who guess well are called intuitive; those who are intuitive, however, don't think they are guessing. (Goldberg, p. 15, 58)

Control and Risk

Two themes unexpectedly emerged from the data related to the administrators' need for control and their willingness to take risks.

Control. Issues over a high need to control self or others--or the illusion of control, and a fear of loss of control, and how that may interfere with willingness to pay attention to intuition--surfaced for five of the 25 respondents. Other administrators in this study may have lower needs for control.

Respondents who addressed this issue noted that when control was suspended they were more likely to have intuitive experiences.

When I'm at my best, I don't have to have everything done my way; I don't have to be in control. I can let the group go its own direction. When I'm at my worst, I pull down the controls. I don't let intuition work. I don't let the hunch work. I pull it all in and try to force issues. . . . Trying to stay on top of everything. I want everything to work fine. I want to look good, act good, sell good.

I think the managers who are more easy-going, have less need to control, are more trusting, create a climate where there is much more likelihood of spontaneous,

intuitive things being expressed. Whereas the organizational climate of watching out for any error, scanning for mistakes, heavily focused on control, making sure nothing goes wrong--I think suppresses that [intuitive expression] real quickly.

I think the other element in terms of intuition that is critical is control. If you feel a strong need to control, and lots of times I do, that's going to interfere with your intuition, because again, there's that urgency, that need to manipulate it, as opposed to being open to it. . . . If you feel like you have to do it now and be in control, then you're not as open to the richness of your own intuition.

It is hard for me to verbalize why I tend to put that lack of wanting to use my intuition with a need to be in control. Because I think intuition is somehow out of our control. I can't control my gut feeling, and being a person who wants to make decisions based on the facts, that's what I tell myself I would like to do. It's got to be that struggle between admitting that there are situations which are out of your control, and it is OK, "You can go with it." I think I am moving more and more in that direction, but it doesn't feel right.

Ferguson (1980) asserts that "if we give up the need for certainty in terms of control and fixed answers. . . . we begin to trust intuition, whole-brain knowing" (p. 107). This is a paradox--decrease the control, and the inner urgings and hunches seem stronger, she notes.

Taking Risks. The respondents who raised the topic of control are conscious of how this need may interfere with their use of intuition. A high need to control self and others may also limit risk-taking behavior, or limit the willingness to trust one's intuition and to choose an innovative or previously untried solution to a problem. Peters and Waterman (1982) addressed these issues when they encouraged willingness to experiment and take risks.

Several respondents who talked about trying to lighten their own need to control also spoke about the importance of taking risks.

I think if people come to understand their own intuition, and are not afraid of it, and will take risks based on it, they will feel more successful.

If you are willing to make some decisions based on intuition, I think you've got to be more willing to take risks. [This organization/administration] lets people know it is OK if they make mistakes.

You create an environment which encourages your people to take risks, to make decisions. If they are wrong, you don't punish them, you help them learn from it and grow, so they go on making risky decisions. Not bad decisions, but they take a chance. . . . Jump off the perch and move. . . . We love to move and shake. . . . We push a lot; we're pushy people!

I think I am challenged by taking risks. Plus I feel very supported here if I take a risk. I've always felt supported wherever I've worked, in taking risks. In fact, I'd feel more under fire if I just accepted things as they were all the time. [My organization] wants to continue to see the programs improve and develop, and you got to take risks to do that. You got to try some things and sometimes they're going to work, and sometimes they're not.

I like to be in a position of initiating and projecting as much as possible, so if we're using intuition as that part of decision making where you really feel you're grounded, you really feel you're on the right track. Almost any significant decision that I make would involve that. A lot of what I do involves risk taking. It involves creating patterns that don't exist. . . . Often I don't have a lot of patterns to guide me. I'm charting some new territory that I want other people to follow, so most of the decisions I make involve some element of risk in a sense that this is right, the timing is right, to push for this, and to get people to move in this direction.

Issues of trust, control, and risk-taking behavior affected respondents' attitudes toward intuition and their readiness to use intuition. Respondents whose past use of intuition resulted in positive outcomes were likely to pay attention to and trust their

hunches, gut feelings, or insights. Those respondents whose style of managing included a high need to control self or others talked of their awareness that high control diminishes effective use of intuition.

Summary

The purpose of Chapter IV has been to give information on respondents and to present and describe the results of the data analysis for this study.

From the diversity of experiences with intuition, the 25 human service administrators' definitions included (a) body sensations, especially gut feelings; (b) sense or common sense; (c) metaphors, including those related to painting; and (d) skill at "reading" people.

Most of the administrators were aware of how they progress through some or all of the four stages of intuition: preparation, incubation, illumination, and verification. In the preparation stage, a knowledge base which includes experience, history, and familiarity with the field contributes to intuitive insights.

Most respondents reported that their use of intuition in decision making is enhanced through interaction with others. They are sensitive to "picking up clues," by paying close attention to others' verbal and nonverbal messages. Relationships and group problem-solving sessions offer opportunities to pick up ideas from others, brainstorm together, and gain new insights, which provide knowledge to enrich their intuition.

The most frequent application of intuition by the administrators in this study was in hiring decisions, followed by personnel issues. Hunches or gut feelings in those areas often led to actions which worked out positively for them and the organization.

An organizational climate with a positive environment which encourages innovation, risk taking, and a diversity of styles is supportive of intuition, according to respondents. Those administrators whose intuition has resulted in successful decisions are likely to pay attention to and trust their hunches.

Chapter V will present a summary of the results and conclusions. In addition, the researcher will offer recommendations for practice and suggestions for further study.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS FOR FURTHER STUDY

People reason intuitively. They reason with simple decision rules, which is a fancy way of saying that, in this complex world, they trust their gut. (Peters & Waterman, 1982, p. 63)

Chapter V will provide the reader with a summary of the findings and offer conclusions drawn from these findings. The researcher offers recommendations for practice and suggestions for further study of intuition.

This study focused on the experience of intuition as reported by 25 administrators in human service organizations. In face-to-face interviews, the 10 women and 15 men were asked open-ended questions about how they use intuition in the decision-making process. The qualitative data were analyzed for themes and patterns which could contribute to knowledge on intuition and to knowledge of the application of intuition in decision making by human service administrators.

The following conclusions emerged from and are grounded in the interviews with the human service administrators. The conclusions will be further developed in subsequent sections.

Conclusions

1. Intuitive people generally go through four stages of intuition--preparation, incubation, illumination, and verification.
2. Intuition is influenced by experience, familiarity, and global knowledge.
3. Interactions enhance intuitive decision making. Administrators value interpersonal interactions as a stimulus for intuitive insights and intuitive decision making, as interactions increase the opportunity to "pick up clues" about problems and possible solutions.
4. Intuition plays an important role in the hiring process. The interviewer's first impressions and perceptions of how the applicant will "fit in" within the organization appear critical in hiring decisions.
5. Nonrepressive organizational climates facilitate intuitive thought.
6. Administrators use intuition for sensing and resolving personnel problems.
7. Attending to the discrepancy between verbal and nonverbal messages provides information leading to intuitive insights.
8. Scenario writing is an aspect of intuition, where a person mentally rehearses or imagines a future event and "plays out" a best-case and worst-case scenario.

9. A high need to control self and others may limit risk-taking behavior and limit the willingness to trust one's intuition and to choose an innovative or previously untried solution to a problem.

10. Intuition is useful for solving ill-structured problems.

Conclusion 1. Intuitive People Generally Go Through Four Stages of Intuition

Most administrators in this study identified ways in which they experience several or all of the four stages of intuition. These stages of preparation, incubation, illumination, and verification have been cited by Blakeslee (1983), Goodspeed (1983), Harman (1984-85), and Rowan (1986) as the four critical steps for inducing and verifying intuition and creativity.

As noted in Chapter IV, the preparation stage includes a person's accumulated knowledge, as well as gathering relevant information and focusing on the problem. During the incubation stage the unconscious processes of the mind seem to work on the problem. The illumination stage brings a gradual or sudden intuitive awareness or solution to the problem. In the verification stage, intuitive solutions are logically checked for feasibility and validity.

In the second half of the interview, respondents were told about the four stages of intuition. By that time, many respondents had given their own examples of one or more of those stages, and the interviewer then tied those examples into the discussion. Over half

of the respondents appeared fascinated by the model or framework the four stages provided, and this new information helped them better articulate the process of intuition that they indeed experience. For others, the framework "fit" and felt comfortable for what they have done all along.

Providing information about intuition and about the four stages may assist some people in (a) setting the conditions that will enhance their use of intuition, (b) paying attention to knowledge which may emerge from intuition, and (c) recognizing the value of the verification stage.

Preparation

The preparation stage, for these administrators, included drawing on their accumulated knowledge and experiences, as well as doing preliminary work on the problem. This important first stage is discussed in Conclusion 2, "Intuition is influenced by experience, familiarity, and global knowledge."

Incubation

Most respondents were conscious of the incubation stage, and many routinely allow time for incubation before making a decision. They defer decisions, allowing time to "sleep on it," "put it on the back burner," or incubate. Others know that they may not get their best ideas in the crowded workplace, and need to seek quiet--early

in the morning, in the evening, in the shower, while driving to or from work, or while sleeping--for the "pieces to fall in place."

Information about the incubation stage affirms the importance of allowing people in a decision-making meeting to take time for incubation after the meeting and before making a final decision. New alternatives, new problems, or new awarenesses may emerge which add a valuable dimension before making the final decision.

Illumination

The illumination stage manifests itself for at least one-third of the respondents as a "light-bulb experience," an awareness of "the missing piece," or an "Aha!" Administrators generally know the times when they are most likely to discover useful alternatives or solutions, such as middle-of-the-night, or when not consciously working on a problem. They have learned to pay attention to the new information which emerges.

Trust and Self Confidence. Paying attention to an intuitive insight, choosing whether to trust it, and being willing to take a risk with it varied among respondents. A connection exists between (a) following up on the information received during illumination, and (b) the respondents' level of trust with times when intuition had guided them toward insights resulting in good decisions. Since some people seem to choose better courses of action than others, the cycle of successful choices and successful outcomes may lead to

future successful choices and outcomes. This validates Goldberg's (1983) view of people who "have an intuitive sense of what to choose and how to act" (p. 15).

Administrators who use intuition as a natural and accepted part of their style of thinking and deciding generally exhibit self-confidence in their mode of discovering good possibilities, based on past successes. However, a few respondents expressed concern that they might sound overly confident, as they talked about their belief in the rightness of their intuitive insights.

The trust placed by respondents in their use of intuition is validated in the literature. "Trusting the process, trusting yourself, trusting your experience, are the keys to trusting and developing your intuition" (Vaughan, 1979, p. 204). This trust seems to be an inner process, which respondents could hang onto, whether or not the external environment acknowledged and encouraged their use of intuition. However, the intuitive people were appreciative of work climates which allowed them to be more open about their use of intuition, so they did not need to suppress honest expression of intuition.

This research did not attempt to compare more successful with less successful administrators. However, the self-reports of the respondents indicate a history of making decisions which generally works out positively for the organization and for the individual respondent. These successes may set up a cycle of (a) positive expectations when one pays attention to intuition, and (b) positive

results from seeing and paying attention to possibilities which might otherwise have gone unnoticed, leading to more (a) positive expectations.

Verification

The verification stage is an important time for checking out the gut-level feeling or hunch. Verification can increase or affirm the trust in intuition, minimize risk, and increase self confidence.

Sometimes the hunch gets squashed by others before it has a chance to fly. If the norm in the organization is "play it safe," or "don't take a risk, because you'll be punished for mistakes," or if the individual proposing the idea is seen as a nonconformist, too visionary, impractical, or an outsider, the idea and the person proposing it may be deflated.

Individuals in this study who talked about wanting to decrease their high need to control self and others, and about the desirability of an organizational climate which supports risk taking, were at some level aware of the need to allow and encourage intuitive ideas in the verification stage.

Respondents spoke of the difficulty in verifying some of their hunches, which later proved true. Some intuitive people are tuned into subliminal clues that others miss. It is almost painful for these intuitive persons to possess knowledge about something they can't--at that moment--prove rationally. This is indeed a dilemma for social service agency people who discover information about

child abuse, client abuse, or sexual harassment. The problem becomes how to pay attention to gut-level feelings, without falsely accusing an alleged perpetrator, and also without letting the abusive situation continue for lack of concrete data.

Conclusion 2. Intuition Is Influenced by Experience, Familiarity, and Global Knowledge

Administrators value the role that experience, history, and knowledge of a variety of subjects--in addition to their own field--play in their decision-making. In discussing their use of intuition, about one-third of the respondents mentioned their belief that the knowledge and experience they have accumulated in a variety of areas enhance their ability to see new possibilities and to make wise decisions.

One respondent shared the following:

Intuition reflects a lot of your prior experiences that have molded your values, how you think, the problem-solving processes you go through. Intuition, I believe, is a decision that you are drawing upon a lot of prior work and life experiences that mold a way of thinking or impact your thought processes.

This conclusion that intuition is influenced by experience is supported in the literature on intuitive thinking and creative problem solving, notably in the work of Albrecht (1987), Austin (1978), Bastick (1982), Brown (1980), Herron, Jacobs, and Kleiner (1985), Isenberg (1984), Miller (1986, 1988), Noddings and Shore (1984), Simon (1988), and Westcott (1968).

One way in which the administrator's insightful thinking is enhanced by experience is through "knowledge about the familiar patterns that can be recognized and knowledge of the cues for recognition" (Simon, 1988, p. 15). The actual experience or knowledge may not be actively remembered or recalled, but it may effectively enable intuitive insights.

Another possible explanation of the role of experience is that intuition may be a function of "stimulus generalization." That is, experiences have been encoded, and upon encountering a stimulus, the person decodes it, or associates it with the past.

Bastick (1982) proposes yet another explanation of how intuitive thought processes are influenced by experiences. "Emotional sets conditioned by past experience are intuitively used to evaluate present experience. . . . The process of intuition relates these present experiences to past experiences" (p. 77-78). He believes that the development of a global knowledge of one's field increases "the likelihood of objectively original and true verifiable intuitions" (p. 386).

Five respondents mentioned that reading a wide variety of subjects, both nonfiction and fiction, provides a data base which may be useful to them in the future. An apparently significant conclusion from this is that administrators who are too busy to read news magazines or even their own professional journals may be missing a rich resource which at some level could help generate ideas,

information, and new connections to enhance decision-making in their organizations.

Two administrators spoke specifically about how, at the beginning of a project, they gather a wide variety of materials, relevant and possibly not relevant, and talk with a variety of people. They seem to know, again at some level, the importance of accumulating a wide base of knowledge and possibilities, before they narrow the focus of their project. The first stage of their thought process, according to Albrecht (1987), is divergent thinking: the expansion phase. The second stage is convergent thinking: the closure phase. He emphasizes that "the creative mind needs raw material to work with" (p. 37).

This acknowledgment of the value of prior experiences and a diversity of raw-material sources and knowledge may help the administrator to recognize the importance, for decision-makers, of building a broad base of experiences through intellectual and cultural pursuits, within one's field and in the wider world of ideas and people. These experiences add an important dimension to the bases upon which decisions are made, affecting the lives of clients and employees and the attainment of organizational goals.

Administrators who discussed the role that experience, history, and knowledge play in decision-making, in most instances included those as components of intuition. Two respondents considered the prior experience valuable and yet separate from their description of intuition. In any case, about one-third of the respondents talked

about valuing, in the decision-making process, that part of their wisdom which includes experience and history.

Conclusion 3. Interactions Enhance Intuitive Decision Making

At least two thirds of the administrators said they rely on interpersonal interactions in the workplace and in the wider environment for information, cues, creative stimulation, and a sense of other people's reactions, which enhance their intuitive decision making.

Early in the data analysis the researcher used the phrase "picking up clues" to describe an everyday occurrence for the respondents. Eighty percent of the administrators talked about their sensitivity to clues in the environment, both work and nonwork, which might give new insights and new awarenesses. A phrase frequently used by respondents was "pay attention." They had learned to value the unexpected bit of information which might come from a chance encounter with another employee, and they had learned to pay extra attention when they felt uneasy about someone or something. A few respondents commented explicitly on their sensitivity to the discrepancy or incongruity between verbal messages and nonverbal messages--such as posture, tone of voice, facial expressions, and demeanor which didn't match the spoken words. Their intuition provided a special warning that something was going wrong or needed extra attention.

This sensitivity may be a special "gift" that intuitive people possess, or it may be a conscious or unconscious setting of priorities. That is, the intuitive administrator, whether introvert or extrovert, values the potential outcome of taking time to be with (a) other members of the administrative team, (b) employees at all levels, and (c) professionals from other organizations and other fields, rather than letting the competing demands of a heavy work load interfere with opportunities to "pick up clues."

One third of the administrators use intuition to deal with personnel problems. This is further discussed in Conclusion 6, "Administrators use intuition for sensing and resolving personnel problems."

The conclusion that interactions enhance intuitive decision making is supported in the literature on intuitive thinking and creative problem solving, especially by Albrecht (1987), Mintzberg (1976), Peters & Waterman (1982), Ramo (1988), and Westcott (1968).

Westcott (1968) discusses how intuitive individuals are influenced by incidental cues they extract from their contacts with others. Ramo (1988) believes that creative people are stimulated by the creative ideas of other people. Mintzberg's (1976) study shows that high-ranking managers prefer face-to-face encounters and meetings over written memos, and Peters and Waterman (1982) encourage managing by wandering around, MBWA.

Extra time invested in interacting with others had additional benefits for the respondents. Generally these administrators do not

make decisions "in a vacuum." They value the opportunity to bounce their ideas off others, to brainstorm together, to listen for ideas and reactions from others, and to gain new insights. While results of other research comparing the quality of group decision-making with individual decision-making are mixed (Hollander, 1978), the 25 respondents in this study showed a strong preference for involving others in the process of moving from their early ideas, hunches, gut-level feelings, and intuitive insights into further exploration, verification, and a decision.

This leads to the suggestion that leadership training should include knowledge and skill training on problem-solving groups, on including a balance of temperament styles on an administrative team or project team, on MBWA, and on the value of watching for and picking up clues from informal interactions.

Conclusion 4. Intuition Plays An Important Part In The Hiring Process

The interviewer's first impressions and perceptions of how the applicant will "fit" in the organization appear critical in hiring decisions.

Administrators believe they have made better decisions in the hiring process, as a result of using their gut-level feelings and hunches. This supports Rowan (1986), who affirms that intuition can be of special assistance in "picking people" (p. 15). More than half of the respondents in this study place a good amount of faith

in their intuition for this important aspect of administration--choosing people to work in the organization. Whether or not they feel comfortable telling colleagues or others involved in the hiring process that they intuitively picked up clues about the applicant, administrators use that information to help guide consideration of the applicant.

These administrators pay attention to positive feelings that an applicant will "fit" into the organization, and to uneasy feelings that something is not quite right about a particular applicant and that they need to check further before making a decision.

The job applicant's first impression on an administrator appears to have a crucial bearing on the hiring outcome. While this may unfairly discriminate against some job candidates, who for whatever reason make a less-favorable first impression on a particular administrator, respondents in this study have learned to trust their gut-level feelings in the hiring process. They have learned both from the successful hiring outcomes when they paid attention to their hunches, and from the unfavorable outcomes when they hired a candidate after disregarding an uneasy feeling.

Lasden (1985) and Vaughan (1979) address the intuitive process which can take place during a hiring interview.

There is room for intuition when deciding whom and whom not to hire onto your staff. Of course, there will always be attempts to quantify the process--administering tests to systematically compare qualifications, conducting highly structured interviews. But, as many managers readily admit, a strong gut feeling--one way or the

other--can immediately circumvent any standardized procedure. . . . During a face-to-face meeting, an intuitive manager may observe a thousand different subtle cues. (Lasden, p. 101)

On [the emotional] level intuition comes into consciousness through feelings. Sensitivity to other people's "vibes" or "vibrations of energy," instances of immediate liking or disliking with no apparent justification, or a vague sense that one is inexplicably supposed to do something, can be instances of intuition operating on this level. (Vaughan, p. 69)

Hiring the "right" people, capable and effective employees who will help carry out the goals of the organization, is one of an administrator's most important tasks. An overarching goal in human services is to "facilitate the delivery of high quality, effective services to clients. . . . related to the [social work] profession's main goal of changing people and social conditions" (Patti, 1987, p. 20). Administrators in this study believe that paying attention to intuitive insights during hiring interviews can assist them in choosing people for the important tasks of human services.

Conclusion 5. Nonrepressive Organizational Climates Facilitate Intuitive Thought

Respondents supported Bastick's (1982) belief that "nonrepressive organizational climates facilitate intuitive thought" (p. 350). They discussed the ways that their creativity and intuition are affected by the organizational climate, either in positive or negative ways.

Sixteen respondents work in organizations which allow and/or encourage them to be open about their use of intuition. In some

cases the respondent holds major responsibility for creating and maintaining a nonrepressive organizational climate hospitable to intuition. In other instances the respondent benefits from, and perhaps contributes to, an environment supportive of intuition and creativity.

Clearly, some respondents chose work settings in which an open and possibly nontraditional operating style encouraged and validated their preferred style of working and thinking. Several respondents work in agencies which have a great deal of freedom to develop new programs, to respond to emerging perceived needs of their particular client population, and to shift funding to meet new priorities--in other words, to be innovative. Whether the respondent consciously or unconsciously chose that work setting, there seemed to be a good fit for the respondent's intuitive style in the organizational climate.

Almost all respondents mentioned encountering, at some point in their careers, one or more of the following: (a) negative reactions to intuition, (b) criticism about their intuitive style, or (c) communication problems with less-intuitive people. In these cases they need to back up carefully any ideas, hunches, proposals, or decisions with rational facts, when the work environment is critical of ideas which can't be justified, rationalized, or proved. Brainstorming out loud may be discouraged in those settings, as though it is unsafe to share a gut-level feeling or hunch, unless one is prepared with (a) data to back it up, or (b) an analysis of

the details of implementation. This need for caution, for being able to "prove it," was very frustrating to a few respondents, who reported that the critical work environment discouraged their creativity and use of intuition.

Two respondents indicated their belief that the work environment would not inhibit their use of intuition--one works in a small innovative setting, and the other in a large bureaucracy. Ramo (1988) addresses the effects of different environments on different people.

Those personnel who happen to be innately creative will, to some extent, creatively attack their responsibilities no matter how modestly the overall company encourages imagination or how meager the managerial effort is to promote creativity. Other employees, those who happen not to be particularly imbued with the creative spirit, will settle down to a largely dull and mundane approach to their work. Whatever potential they may have for innovating will remain undeveloped and may even decay.
(p. 7)

The sixteen administrators who work in settings which allow and/or encourage them to be open about using intuition appear to benefit from and appreciate the "nonrepressive" organizational climate.

Conclusion 6. Administrators Use Intuition for Sensing and Resolving Personnel Problems

One third of the administrators said they often use intuition in dealing with personnel problems. They took pride in their ability to "read" employees and sense personnel problems before being told about the problem. As one respondent said, "I know

intuitively when things are not going right in a certain area, whether the person tells me that or not." This also relates to the habit of many of the respondents to mingle in the workplace and to have an open office door, so they can "pick up clues" about how things are going for employees, both personally and professionally, and in the various agency programs. This serves as an early warning system for these administrators, who may be able to work with an employee before the problem becomes more difficult to resolve.

Conclusion 7. Attending To the Discrepancy Between Verbal and Nonverbal Messages Provides Information Leading To Intuitive Insights

Several respondents explicitly pay attention to a possible discrepancy between verbal and nonverbal messages in others. They attend to the other person's body language, which may contradict the other person's words. They also pay attention to their own body reactions to discrepancies in the other person's verbal and nonverbal messages. This extra sensitivity to human interactions and to the discrepancy between verbal and nonverbal messages helps the respondents "know" when something is going wrong, or something needs extra attention.

Conclusion 8. Scenario Writing is an Aspect of Intuition

During the verification stage at least one fourth of the respondents mentally rehearse or visualize the outcome, checking out their feelings about the decision, imagining the consequences,

seeing others' objections, and making modifications. The administrators may mentally rehearse presenting the information to others, and imagine their own responses to possible objections. These processes help the administrators find possible flaws in their reasoning, and prepare them to support the proposal more effectively and confidently.

Conclusion 9. A High Need To Control Self and Others May Limit Risk-Taking Behavior and Limit Intuition

Five administrators discussed their awareness of issues of control. They identified the paradoxical problem of how a high need to control self and/or others appears to interfere with the administrators' willingness to pay attention to intuition. They realized that this illusion of control may limit risk-taking behavior and limit the willingness to trust intuition and to choose an innovative or previously untried solution to a problem. Elbow (1986) describes this as "learning to move back and forth between imposing control and relinquishing it" (p. 54).

Conclusion 10. Intuition Is Useful for Solving Ill-structured Problems

Human service organizations are frequently faced with solving ill-structured problems--those problems with inadequate data, unclear decision rules, and uncertain futures (Silverman, 1985). Four respondents talked about the usefulness of intuition for solving ill-structured problems. Respondents may be able to see

into the future, in a sense, with intuitive hunches, rather than being hemmed in by application of past solutions to rapidly changing and evolving situations. For some respondents, solving this type of problem includes gathering the available data, and then taking a risk by making a gut-level decision.

Organizations with a record of innovative, ahead-of-their-time successful projects and programs may indeed be led by administrators who pay attention to their intuition and are willing to take risks as they put together possibilities for program development and other projects with inadequate data, unclear decision rules, and uncertain futures--ill-structured problems.

Recommendations for Practice

To help people become truly intelligent, by utilizing the intellect and intuition for better decision making and problem solving, is the challenge of anyone working in the area of intuitive awareness. (Emery, 1987, p. 27)

The researcher offers the following recommendations for practice, based on the results of this study. The recommendations are aimed at three levels: (a) organizations interested in providing an organizational climate which enhances use of intuition as a part of the decision-making process, (b) training programs for administrators and managers, and (c) individuals wishing to enhance their own use of intuition.

Developing Organizational Climates Supportive of Intuitive Decision Making

1. Encourage open expression of ideas. View divergent ideas and points of view with respect rather than with skepticism or defensiveness. Encourage a creative problem-solving process, where brainstorming and intuitive ideas are given a chance.

2. Encourage risk taking, experimenting, and innovating. Acknowledge the possibility of making mistakes.

3. Offer opportunities for individuals to learn more about their own preferred style (Gregorc Style Delineator, 1982b; Keirsey Sorter, 1978; Myers-Briggs Type Indicator, 1962). Teach how this information can be used in balancing work groups and working with people of different styles.

4. Balance work groups and project teams with people of different styles--thinker, sensor, feeler, intuitor.

5. Acknowledge the role that intuition and first impressions play in the hiring process.

6. Provide time for incubation and illumination--a creative pause--for additional ideas to arise which may contribute to effective decision making.

7. Encourage interaction with others--both inside and outside the work group.

8. Value the added knowledge and wisdom that come from reading a variety of sources and interacting with a variety of people.

9. Legitimize talk about intuition, hunches, and gut-level feelings; acknowledge that the person with an intuitive experience may not be able to rationally explain how the idea emerged.

Including Intuitive Decision Making in Training Programs for Administrators and Managers

1. Offer a module or workshop on intuitive decision making in university programs training leaders, administrators, and other professionals; in organizations; and as a public workshop.

2. Teach an integrated model of decision making, which synthesizes the strengths of both the rational and the intuitive ways of knowing, choosing, and deciding, and which acknowledges the range of decision-making styles of different people.

3. Address issues noted in the previous section on "Developing Organizational Climates Supportive Of Intuitive Decision Making," and suggestions listed in the following section on "Enhancing Intuition: Ideas for Individuals."

Enhancing Intuition: Ideas for Individuals

1. Pay attention to one's own intuitive experiences. Devote time to developing intuition. Allow time for incubation and illumination before reaching a decision.

2. Practice flexibility and openness to unknowns as they appear. Defer judgment.

3. Be willing to take risks and to decrease the need to control self, others, and the situation.
4. Take time to listen to others, and stay open to new information.
5. Check any decision-making process to see whether it feels intuitively good in process and in the final decision.
6. Learn more about intuition, by attending a workshop, reading about intuition, and talking with others about intuition.
7. Check out suggestions in the section above on "Developing Organizational Climates Supportive Of Intuitive Decision Making," for additional ideas useful in the workplace.

Suggestions for Further Study

The present study offers many ideas for further research on intuition. Possibilities include the following questions:

1. What part does intuition play in the hiring process? Is the first impression (gut-level hunch by interviewer) the strongest factor in whether or not an applicant gets hired?
2. How does the organizational climate affect employees' use of intuition?
 - a. Is there a difference in the organizational climates where more-intuitive people or less-intuitive people work?
 - b. How can an individual or organization encourage a climate supportive of intuitive management?

- c. How can administrators further legitimize the use of intuition, which is already alive and well?
- 3. Does a training event on intuition change anything in the organization?
 - a. What techniques assist people in enhancing intuitive abilities?
 - b. What techniques assist the organization in supporting use of intuition?
- 4. Are the intuitive experiences of female and male administrators significantly different? If so, in what ways?
- 5. How can an instrument on temperament styles (Gregorc Style Delineator, 1982b; Keirsey Sorter, 1978; or Myers-Briggs Type Indicator, 1962) be used in an organization:
 - a. To identify and encourage use of intuition?
 - b. To balance work groups and project teams?
- 6. What can be learned about other populations regarding their use of intuition in decision making?
- 7. What can be learned about a synergistic effect? When people express their intuitive hunches, does that encourage new insights in others?
- 8. What other types of research methods could be used in learning about intuition?

Limitations

Some limitations of this exploratory descriptive study are apparent. By choosing a purposive sample of persons identified as intuitive, no comparisons were made between more-intuitive and less-intuitive persons. The study did not seek to learn how persons who less often use intuition in decision making might answer the questions.

The instrument was "reactive," in that respondents knew their responses to questions about intuition were the focus of the study. This may have caused them to react differently than if they were asked general questions about decision making or problem solving, with no mention of intuition. Also, a change in respondents' behavior or responses may have occurred because of the intrusive nature of tape recording.

Another limitation relates to two conclusions based on four or five respondents--possibly a low threshold for confident conclusions. This relates to findings about the concepts of control and of solving "ill-structured problems," which were (a) initiated independently by a few respondents, (b) not addressed in the questionnaire, and (c) not commented on by other respondents. Since the study provided no means for questioning respondents who didn't talk about a particular concept, the researcher knows nothing about their possible opinion or experience with that conclusion.

Some responses and conclusions could be labeled "creative decision making," and no clear distinction was made in the study about the possible relationship between the abstract concepts of intuition and creative decision making.

A final limitation concerns lack of development of a synthesizing definition of intuition, which may indicate lack of a unitary phenomenon of intuition. Instead, data in the study show the variety of ways in which the 25 respondents describe their experience with and use of what they refer to as intuition.

Summary

This study on how human service administrators use intuition in decision making has added to the knowledge of intuition, and more specifically to information on ways intuition is used in a particular setting. The conclusions that emerged from the interviews with 25 administrators helped with knowledge building and can also serve as a stimulus for further research.

Conclusions included the following: (1) Intuitive people generally go through four stages of intuition--preparation, incubation, illumination, and verification. (2) Intuition is influenced by experience, familiarity, and global knowledge. (3) Interactions enhance intuitive decision making and increase opportunities to "pick up clues" about problems and possible solutions. (4) Intuition plays an important role in the hiring process. (5) Nonrepressive organizational climates facilitate

intuitive thought. (6) Administrators use intuition for sensing and resolving personnel problems. (7) Attending to the discrepancy between verbal and nonverbal messages provides information leading to intuitive insights. (8) Scenario writing is an aspect of intuition, where a person mentally rehearses or imagines a future event and "plays out" a best-case and worst-case scenario. (9) A high need to control self and others may limit risk-taking behavior and limit the willingness to trust one's intuition and to choose an innovative or previously untried solution to a problem. (10) Intuition is useful for solving ill-structured problems.

The chapter continues with Recommendations for Practice at three levels: organization, training programs, and individuals. The chapter concludes with Suggestions for Further Study, which could increase the likelihood that intuition will become a more recognized and explicit part of the decision-making process for individuals and for organizations. The results of the present study will need to be considered in future studies and with different occupational groups before the implications can be extended. Whatever the results, this and subsequent research on intuition should provide information for organizations on how intuition is used by people in gathering information, gaining new insights, and making decisions.

APPENDICES

Appendix A

The Questionnaire

QUESTIONNAIRE ON INTUITION
 Judy Halseth
 Western Michigan University
 2/15/88

Instructions to interviewer: If respondent asks for a definition of intuition, you may say "Intuition is another way of knowing".

- ** Probes with two stars are especially important, as they ask for different information.
 - * Probes with one star are to be used if respondent hasn't covered this information.
- Probes without a star are a suggested way of asking for elaboration, if response was brief, and you want to encourage respondent to say more.

When you see [intuition], you either use the word intuition, or preferably, you use one of their own terms, such as hunch, gut feeling, flash, etc.

Introduction:

We are conducting research on intuition, by studying administrators and asking how they use intuition in problem solving and decision making.

1. I'd like to start by asking you:

When you think of the word "intuition", what other words, metaphors, or imagery come to mind?

(Jot down some of respondent's terms, so you can refer to them later in the interview.)

Probes:

- (a) What other names or labels would you give to your intuitive experiences?
- (b) There are a variety of meanings attached to the process of intuition. What else do you mean when you talk about your intuition?

2. By contrast, what words do you use to describe other styles of problem solving or decision making?
3. For the remainder of the interview we'll be talking about your experiences using intuition in solving problems and making decisions. Now I'd like you to think about a recent decision or problem you dealt with where you relied on [intuition]. When you are ready, please tell me about it.

Probes:

- (a) Could you tell me more about that?
- (b) [tie in some words used to answer question 1, if possible]
- * (c) What happened before the [intuitive insight]?
- * (d) What was it like when the [intuitive insight] came to you?
- * (e) How did you decide whether or not to trust your [intuition]?
- * (f) How did your decision turn out?
 - (1) If your [intuition] was "right" . . . ?
 - (a) How did you feel?
 - (2) If it wasn't right . . . ?
 - (b) How did you feel?

4. For what kinds of problems or situations are you likely to rely on intuition?

Probes:

- (a) Could you tell me more about that?
- ** (b) How useful has intuition been to you for those kinds of problems?
- ** (c) Do you use your intuitive abilities to obtain deeper insights about your co-workers or in hiring decisions?

5. Are you aware of going through different phases or stages of the intuition process?

Probes:

- ** (a) Do you do anything special to set the stage for intuition? [preparation and incubation]
- ** (b) What happens when the answer comes to you? [illumination]
- ** (1) Do you find yourself engaging in self-talk?
- ** (c) How do you decide whether or not to trust your [intuition]? [verification]
- ** (1) Are you willing to take risks based on your [intuition]?
- ** (2) Do you discuss this with other people before you finally make a decision?

Optional: Definitions of 4 stages of intuition

Preparation includes the storehouse of information and experiences that have been accumulated by an individual through the years. It also includes the awareness and information about a problem to be solved or a decision to be made.

Two important facets of the incubation stage are relaxation and allowing time. It is important to quiet the mind. Relaxing and letting the mind wander off in another direction gives it freedom to find the answer.

In illumination, "don't tune out your hunch". Dreams, metaphors, visualization, and "eurekas!" may hold important insights.

Verification--check it out with rational facts. Do the facts support your hunch?

6. What else can you tell me about how you experience the process of intuition?
7. How does your work environment inhibit or encourage your use of intuition?
8. What else would you like to tell me about your experience with intuition in your organization?
9. Who do you know in human services administration, who you consider to be an intuitive person?

Thank respondent for being willing to participate and to give time out of their busy schedule to share their experience with intuition.

Appendix B

**Cover Letter, Consent Form,
Face Sheet, and Thank You Letter**



School of Social Work
(616) 383-0974

Dear

Do some of your best ideas for solving problems and making decisions come through intuition? Have you wondered if you're the only one using intuition?

As part of my doctoral studies in Educational Leadership, Western Michigan University, I am conducting research on intuition, asking people in administrative roles in human services how they use intuition in decision making.

The results of this study will contribute to the growing body of knowledge on intuition and to knowledge of decision-making styles in human service organizations. The results could be useful to agencies and organizations interested in more creative and intuitive problem-solving and decision-making strategies to apply to the organizational and human problems they face.

I am inviting you to contribute to this study of intuition, by participating in a face-to-face interview, which would take from one to one and a half hours and which would be tape recorded.

Your identity in this research would remain confidential. Neither your name nor your agency's name would be identified with any of your responses, as data will be reported anonymously in the report.

I hope you are willing to discuss your experiences with intuition in decision making. I will call you in a few days, or if you prefer, you can call me. If you agree to participate in the study, either I or a research assistant will set up an appointment with you, to be held at your workplace.

Thank you.

Sincerely,

Judy Halseth, ACSW
Associate Director
Assistant Professor



*School of Social Work
(616) 383-0974*

CONSENT FORM

I understand that the purpose of this research is to study intuition by interviewing human service administrators about their use of intuition in decision making.

I understand that my identity will remain confidential. Neither my name nor my agency's name will be identified with any of my responses. Data will be reported anonymously in the report.

I give my permission for this interview to be tape recorded. I understand that tapes will be held in a locked drawer until after all data is analyzed and the report is published. Then tapes will be destroyed.

_____ Investigator

_____ Date

_____ Respondent

_____ Date

(Interviewer: Fill in known information before interview)

FACE SHEET
Intuition Interview

CODE

Name

Date

Position

Agency

Address

Phone

Size of Agency (approximate # of employees)

Masters degree? What field? If MSW, Social Treatment, or PP&A?
Doctorate?

Years of experience in social work, social welfare, or human services

Years experience as administrator

Age

Gender

If person of color or ethnic minority

2/21/88 jh



*School of Social Work
(616) 383-0974*

Dear

Thank you very much for participating in my research on intuition. I enjoyed our interview, as we talked about how you use intuition. Your words are yielding useful data to help me understand how administrators use intuition in decision making.

With the help of two research assistants, we completed 25 interviews, and the tapes have been transcribed. Now I am engaged in the process of coding, analyzing, and interpreting the data.

The preliminary findings look interesting, and my energy and enthusiasm for intuition continue at a high level. I believe this new information on how human service administrators use intuition in decision making will be useful to the profession.

I expect to complete analyzing and interpreting the data and writing the remaining chapters of the dissertation by August 1. Next steps include working with the dissertation committee on revisions, participating in the oral defense of the dissertation, and graduating with an Ed. D. in Educational Leadership.

At the conclusion of this process I will send you a summary of the findings.

Thank you again for your important contribution to increasing our knowledge about how people use intuition.

Sincerely,

Judy Halseth, ACSW
Associate Director
Assistant Professor
387-3175

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