Intuition: concept analysis of a group phenomenon

Intuition as a group phenomenon is clarified through the process of concept analysis using the analytical process outlined by Walker and Avant. Intuition as a respectable characteristic of creative and powerful groups is based on uses of the concept; identification of attributes, antecedents, and consequences; construction of various cases; and identification of empirical referents. Suggestions for applications in nursing education, nursing administration, and professional organizations follow.

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INTUITION: IS IT just a "crazy hunch" expressed by an eccentric individual or a respectable cognitive skill characteristic of both the individual and the group? Does it represent the artistic side of the individual who practices nursing or is it a characteristic of the science of a professional group known as nursing? Answers to these and related questions can be proposed once the concept of intuition as a group phenomenon has been studied through concept analysis. Consonant with the strategy outlined by Walker and Avant,[1] the process of concept analysis begins by selecting the concept of interest and determining the purpose of the analysis. Because of the confusion surrounding it, intuition as it applies to nursing was selected as the concept for analysis. Adhering to Walker and Avant's model, uses of the concept were identified, defining attributes determined, antecedents and consequences identified, various cases constructed, and empirical referents delineated.

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LITERATURE REVIEW

The phenomenon of intuition has been observed in individuals and in groups. Whereas the individual may be defined in terms of personality organization and cognitive processes (including perceptions, motivations, goals, and behaviors), similarly the group may be defined in terms of organization and cognitive processes, behaviors, and goals.[2] While generally associated with an individual, intuition is also gaining recognition as a creative and powerful attribute of groups. It may be observed in a nonrepressive environment such as the classroom, the business conference room, or a professional organization.

In his exploration of the history and evolution of the concept of intuition, Westcott[3] defines intuition as a process of reaching accurate conclusions based on consensually inadequate information. A group of individuals experienced in trusting their intuitive skills may be able to reach a consensus more quickly through use of their collective intuition than through the slower, step-by-step process of analytical reasoning. This powerful phenomenon of groups is described by Ferguson[4] in reference to a hypothetical group she calls the Aquarian Conspiracy—an advanced network of human beings who believe in greater potential for the human mind.

In formulating a theory of intuition, Bastick[5] describes this concept as a universal ability that is reflected in the creative inspirations of great scientists, as well as in the daily hunches that guide individual behaviors. He alludes to intuition as the quintessential phenomenon of human thought. Similarly, Assagioli[6] refers to intuition as a true means of cognition or illumination. He relates the term to vision, showing that it is derived from "in-tueri" which means literally to "see within."[6(p225)] He further describes intuition as useful to science because it is a way of reaching truth in a synthetic manner.

In contrasting the cognitive process of intuition with analysis, Simonton states that "intuitive thinking sidesteps the need for cognitive mediation by gradually accumulating the relative conditional relationships."[7(p31)] Likewise, in applying intuitive judgment, Kahneman and Tversky refer to intuition as an "unstructured mode of reasoning without use of analytic methods or deliberate calculations."[8(p123)] As a cognitive skill, intuition complements sequential rationality.[9]

Traditionally, groups of individuals identified as being highly intuitive included women, children, and persons from nonindustrialized countries. Such groups also tend to have relatively little power in circumstances where rationality is valued. Consequently, such groups may be treated as inferior and their intuitive contributions greatly underrated.[10] However, Assagioli[11] stated that intuition's creative and synthetic qualities are much needed in groups that are overintellectualized and that worship only the analytical mind.

Assagioli identified groups of individuals with strongly developed intuitive skills as comprising an "intuitive personality type," described by Carl Jung.[12] Jung's typology was extended by the works of Briggs and Myers[13] to encompass 16 personality types that could be identified by use of a type inventory. The Myers-Briggs Type Indicator (MBTI) has been widely accepted as a tool for measuring the pres-

ence of intuition, and much research related to the prevalence of the intuitive type in a variety of nursing settings has been conducted.[13]

In the business world, frequent reference is made to the presence of intuition in successful business leaders. A Cosier and Aplin[14] study separated subjects into two levels of intuition—high and low—depending on their ability to identify cards before seeing them. Results showed that the group with high scores on intuition made significantly better decisions about simulated managerial problems than those with low scores. Such inner promptings allow the mind of the individual or group to perceive "wholes" rather than "bits and pieces" characteristic of the linear reasoning process.[15] The value of such a skill is summarized by Buckminster Fuller who stated, "I myself have always held that my intuition is the most important faculty that I have."[16(p10)]

USES OF INTUITION

In addition to references in the literature, uses of the concept are found in the dictionary and thesaurus. The following are offered to further clarify use of intuition as a noun:

1. "direct knowing or learning of something without the conscious use of reasoning; immediate apprehension or understanding; something known or learned in this way";[17(p740)]
2. "immediate apprehension by the mind without reasoning; immediate apprehension by a sense; immediate insight";[18(p527)]
3. "the act or faculty of knowing without the use of rational processes; immediate cognition; knowledge gained by use of this faculty";[19(p674)]
4. "direct or immediate knowledge without consciousness of having engaged in preliminary thinking; a judgment made without preliminary cogitation."[20(p270)]

Synonyms given for intuition are:

1. "innate knowledge, immediate cognition, instinct, instinctive feeling; insight, guesswork, surmise, sixth sense";[21(p383)]
2. "understanding, reason, intellect, soul, mind; insight, acumen, discernment; instinct";[22(p464)]
3. "presentiment, foreknowledge, inspiration; feeling."[23(p324)]

DEFINING ATTRIBUTES

Considering the uses of the concept of intuition in the literature and meanings of the term from reference sources, attributes of intuition can be defined as:

- knowledge of a fact or truth, as a whole;
- immediate possession of knowledge; and
- knowledge independent of the linear reasoning process.

ANTECEDENTS AND CONSEQUENCES

Determining the antecedents and consequences of the concept helps refine the defining attributes of intuition. Antecedents of intuition—those situations or conditions occurring prior to the concept—consist of (1) global truth or knowledge that is not readily apparent or available through the conscious reasoning process,

and (2) an open channel for such knowledge to be received.

Consequences of intuition, situations or conditions occurring as a result of the concept, consist of verification of the fact or truth through linear analysis and application of the knowledge in both theoretical and practical ways. The creative mathematician, Poincaré, demonstrated that intuition is basic to discovery, ie, discovery is a consequence of intuition, while logic is the means by which its existence is proven.[5]

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VARIOUS DEMONSTRATION CASES

The defining attributes of the concept of intuition, and its antecedents and consequences, can be demonstrated by constructing various cases with a model case consisting of a real-life situation shown in the following example.

Model case

Sharon, Robert, Gwen, and Betty formed a study group while they were in graduate school. To improve their thinking skills, the instructor challenged the students weekly with a riddle to demonstrate a fact related to the subject matter. After working diligently for several minutes and feeling frustrated because they were no closer to a logical solution to the riddle than when they had begun, Gwen suggested that they put down their pencils, turn off the lights, sit quietly for 15 minutes, and permit a spontaneous image to take place in each of their minds. At the conclusion of the exercise, each of the individuals, without talking to any of the others, wrote down an answer. Comparing what they had written, they found that Sharon had drawn a stick figure of a person, Robert had written the word "man," and both Gwen and Betty had written the term "human being." Later they verified their answer with the instructor, who stated that the riddle demonstrated the concept of the human being, thus adding another dimension related to the subject matter.

This model case has all the defining attributes of the concept of intuition. The group collectively grasped knowledge of a truth as a whole (the concept of "human being"), the group experienced immediate possession of this knowledge (receptively experienced the spontaneous images and recorded them), and the group acquired the knowledge independently of the linear reasoning process (it ceased its rational discussion). Antecedents of the existence of the truth or fact (answer to the riddle) and the open channel for reception of the truth (quiet visualization) are evident. Consequences, verification of the truth (the instructor validated their answer), and application of the knowledge (providing an additional dimension to the subject being studied) are included.

Contrary case

The contrary case also consists of a real-world situation that does not fulfill the requirements of the concept of intuition.

Another group of students, Jerry, Paul, Rita, and Ann, were working together on a crossword puzzle of computer terms. Having been given a list of the correct terms by their instructor, they were to look up the meanings of the terms in reference books, then complete the puzzle. After gathering all the definitions to the word list, the group met to complete the crossword puzzle. At first they systematically went through the list of terms and definitions, carefully completing the requirements for the puzzle. After they wearied of this process, Paul suggested, "Hey, you guys, we're all pretty intuitive, right? Let's just guess the rest of these answers and save some time." The others agreed and they quickly finished the assignment. The next day they compared the completed puzzle with that of the teacher and found that there were only two errors in the first part of the puzzle but there were eight errors in the second part.

The contrary case clearly shows what the concept of intuition is not. The defining attributes are not all present as there is an absence of whole truth (several errors occurred), knowledge of the truth was not immediate (they had looked up the meanings of the terms), and the truth was not independent of linear reasoning (more truth prevailed on the first part of the puzzle where reasoning was used than was evident on the second part where intuition was attempted). The antecedent of the existence of truth (the answers to the puzzle) was demonstrated, but the antecedent of the open or receptive channel was not (they guessed the answers in order to hurry the process). Consequences were verification of some truth (some correct answers), but it is obvious that this was not complete. It was not apparent whether the students were able to apply the knowledge gained.

Invented case

An invented case is useful for demonstrating the defining attributes, antecedents, and consequences in a different context. It is constructed from ideas outside the usual domain in which the concept is being analyzed. Three fluffy white organisms, known as INTUITS, were chosen by the emperor of their kingdom to float over the surface of the earth and return to the kingdom with knowledge about the earth's inhabitants. These INTUITS were a new breed of organism, each containing a superior intelligence consisting of high-speed data analysis into which had been programmed the accumulated observations and experiences of many intelligent species in the universe. They also contained an immediate sensor, capable of receiving the ultimate truths of the universe, independent of time or space. The INTUITS had the capability of selecting either of the two modes as they collected information to add to their emperor's knowledge. Each was reliable in specific situations and could be selected by a simple nod of the head in one direction or the other.

Floating over the surface of the earth, the INTUITS found that some life forms were excited about their own abilities to analyze information and solve problems swiftly and accurately. These life forms were frightened when the INTUITS demonstrated superior speed and accuracy in solving the same problems, but they calmed down when the INTUITS demonstrated that they, too, could solve the

problems through analytical means. The INTUITS also met creatures who were not frightened by the INTUITS' superior sensing capabilities, but who were in awe of the INTUITS' ability to use one mode or the other since it seemed to happen accidentally. After thoroughly covering the surface of the earth and gathering information with both modes of their superior intelligence, the INTUITS returned to their kingdom bringing to the emperor great truths about the creatures of earth, which they used to develop ways to communicate with these distant beings.

The invented case demonstrates the application of all defining attributes. The INTUITS were able to receive knowledge of whole truths about the earth's inhabitants instantly, by accessing the proper mode and without using the process of linear reasoning, although this mode was also available for their use. The antecedents and consequences of the concept were also evident. The truth existed and the INTUITS were able to open the channel to receive it. The truth was verified through communications with the creatures of earth.

EMPIRICAL REFERENTS

The final step in this concept analysis of intuition is to identify the empirical referents that demonstrate how the concept is measured or determined to exist in the real world. Since the purpose of this concept analysis is not to determine an operational definition, the empirical referents are limited to existing measurements.

One such measurement, the MBTI, has shown intuitive types to cluster in certain work settings. Hence this identification of specific personality types has been used to select complementary individuals to comprise groups to enhance productivity.

More recently, the Singer-Loomis Inventory of Personality (SLIP)[24] was developed and proclaimed as a more accurate testing instrument than the MBTI for determining psychological types due to the presence of independent rather than forced-choice items. With this instrument, researchers report the ability to measure an individual's cognitive style, including, as a significant factor, intuition. This may also be used as a means of selecting and predicting those individuals who would comprise the most productive working groups in a variety of settings.

In his comprehensive theory of intuition, Bastick[5] provides many examples of experiments designed to measure intuition. Most of these examples include operational definitions of intuition in which subjects make predictions based on incomplete information. Accuracy of prediction and reliance on minimal clues comprise the criteria for measurement of the concept.

Empirical evidence of intuition as a personality trait and as a cognitive skill exists. The concept of intuition may be operationalized in terms of cognitive and affective states.

INTUITION IN NURSING EDUCATION

The application of intuitive skills is needed in basic, graduate, and continuing nursing education. The task of building a comprehensive science of nursing depends on acquiring and applying knowledge from rational and intuitive cognitive pro-

cesses. Students can learn to develop their intuitions through mind-quieting exercises, and these intuitions must then be validated through analytical reasoning.

In contrast to the regimentation of nursing students, which stifles intuition, group brainstorming sessions, group visualization, and quiet thinking time are necessary if nurses are to respond creatively to the changing needs of human beings. These intuition-nurturing periods can help not only those in nursing education, but also those in nursing practice who may benefit from exploring intuitive problem solving through groups.

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Professional organizations in nursing are troubled by the lack of harmony and unity within their ranks. While there is evidence that much logical thinking and organizing has gone into the development and maintenance of these organizations, apparently neither individual nor collective intuitions have been sought for creative solutions. The evidence that collective intuitions carry much power[10] is just beginning to accumulate.[13] Perhaps the survival of such organizations depends on a willingness to "look within."

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Intuition should be considered a respectable cognitive skill characteristic of the science of nursing. Although clarification of intuition through concept analysis has shed light on this concept, the future of nursing as a science and as a profession could depend on willingness to explore it in greater depth and breadth.

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