

Dialogue on a Theoretical Issue

STRENGTHENING THE ROY ADAPTATION MODEL THROUGH CONCEPTUAL CLARIFICATION

Commentary and Response

Commentary: Conceptual Clarification

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As nursing strives toward earning the distinction of a mature profession and science, the task of knowledge development becomes paramount. Philosophers of science often cite the amount of empirical evidence generated in support of theories as a means to assess the progress of knowledge development. However, Laudan (1977), a contemporary philosopher of science, pointed out that knowledge development and progress does not rely solely on solving empirical problems and accumulating empirical evidence. Laudan (1977) maintains that conceptual problem solving activity is just as important to knowledge development as empirical problem solving activity.

The focus of this commentary is on strengthening the Roy adaptation model through conceptual problem solving to aid knowledge development. Conceptual problem solving refers to identifying conceptual ambiguities and inconsistencies, analyzing them, and making modifications based on the analysis to clarify meaning and increase conceptual precision. The Roy adaptation framework was chosen for analysis because of its strong potential for use as a theoretical framework in research as well as its capability for providing direction for nursing practice. Roy (1988) refined the assumptions of her model thus clarifying and strengthening the adaptation model. However, knowledge development would continue to be enhanced through clarification of other conceptual problems in the Roy model.

Four areas of conceptual problems in the

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Roy model have been identified in this process of attempting to use the model as a guide for research. The areas are: health and adaptation, adaptation vs. coping, the person as an adaptive system, and goals of adaptation. In the following sections, each problem area will be discussed and suggestions for modification will be offered, in order to increase conceptual clarity.

Health and Adaptation

Roy's statements about health have evolved since the first article about her model appeared in the literature in 1970. Roy's (1970, 1971, 1973, 1976) early writings through her written matter in 1980 referred to health as one dimension of an individual's life, which formed a continuum along which an individual could be located at any given time. Individuals responded to various stimuli along the health-illness continuum and between the end points, peak wellness, and death (Roy, 1976, p. 18).

Later, Roy (1980, 1983) introduced a link between adaptation and health. "Adaptation is a process involving the holistic functioning of the person using his or her potential to affect health positively" (Roy, 1983, p. 266). Adaptation moved the individual from one point on the continuum to another in the direction of poor health to wellness. "The person's adapted state frees energy to respond to other stimuli. It is the freeing of energy that links the concept of adaptation to the concept of health. When energy is freed from inadequate coping attempts, it can promote healing and wellness" (Roy, 1983, p. 268). Thus, the nature of the person and environmental stimuli, together with the effectiveness of the adaptation or coping processes, determined the person's location on the continuum.

Throughout Roy's early writings, health appeared to be conceptualized as a *state*. The state was manifested either as peak wellness or extreme poor health or somewhere in between. Because points along the health-illness

continuum were not theoretically defined by Roy, it was difficult to know what health meant. Mastal and Hammond (1980) filled this void by offering theoretical definitions for varying adaptive behaviors along the continuum.

In Roy's 1983 and 1984 writings her definition of health took on a different appearance. "Health is a state and process of being and becoming an integrated and whole person" (Roy, 1984, p. 39). It is not clear whether the preceding definition replaced the health-illness continuum or whether the integrated and whole person was synonymous with the peak wellness end of the continuum. Andrews' and Roy's (1986) writing continues to define health as a state and a process of being and becoming integrated and whole.

Turning to the definition of adaptation, Roy (1970) stated adaptation was a person's response to the demands made of him or her in a changing environment. She also stated adaptation was an act or response (Roy, 1970, p. 43). Roy and Roberts (1981) stated adaptation was a process of coping with stressors as well as an effective end state. The reader will note Roy's (1988) current definition of health is similar to the definitions of adaptation in that both are defined as states and processes.

In summary, health was defined as a state of being integrated and whole. It was also defined as a process of becoming an integrated and whole person or a process of coping with a changing environment. Adaptation was defined as a process of coping as well as an effective end state. The final result is that the state of health is synonymous with the end state of adaptation, whereas the process of health is synonymous with the process of adaptation.

The fact that health and adaptation are both states and processes leads to unnecessary confusion within the Roy framework. The confusion has made it impossible to list critical attributes for adaptation and health, thus causing the researcher difficulty in identifying the occurrence of the phenomenon. To increase conceptual clarity, this author suggests distinct labels with only one definition for each phenomenon. It is proposed that adaptation refer to the *process* by which health is obtained and health refer to a *state* of integrity or state of integration and wholeness.

Through a review of the adaptation literature, support was found for viewing adaptation as a process rather than a state. Mechanic (1976) viewed adaptation as a transitive process between people and their life situation. To the extent that capacities of individuals were fitted well to the challenges which they confronted, the flow of events was routine and ordinary.

Bergersen (1971) referred to adaptation as the process of change. Leininger (1971) defined cultural adaptation as major alterations in the relationship of people to their total environment that leads to major trends or changes in individuals' behavior or development. Melito (1985) stated adaptation concerned the problem of how a system can change while at the same time preserving its integrity and organizational coherence. Scott (1966) stated that for persons to respond to pressures to change or adapt, they must be capable of detecting those pressures and not be rigid, but flexible, and be ready to change. Kleinman and Buckley (1982) referred to individual adaptation as adjustments made by the individual in the ongoing process of interacting with the environment.

Duffy's (1987) argument that adaptation is only one outcome of the change process is another reason to view adaptation as a process rather than as an outcome. Adaptation as a process-outcome in a conceptual model such as Roy's is limiting because there are other possible process-outcome variables. Duffy (1987) cited permanence and transcendence as other possible process outcomes. Health is a broader process-outcome variable and would allow the Roy model to provide a stronger base for the development of unique nursing theories.

Moreover, using separate concepts to distinguish between process and outcome would facilitate measurement of the concepts and help avoid confounding between process and outcome. Lazarus and Folkman (1984) emphasized the importance of keeping the study of process and outcome independent. "Judgments about the adaptiveness of a strategy must be made contextually" (Lazarus & Folkman, 1984, p. 140). In other words, the adaptive process must be determined in terms of its effects in a given situation.

In summary, the Roy framework views both health and adaptation as states and processes. To add clarification to the Roy framework, it is suggested that adaptation refer to a process and health refer to a state, a state obtained through the process of adaptation. This clarification would facilitate use of the Roy framework by researchers and practitioners and would not require other changes in Roy's model.

Adaptation vs. Coping

It is important to note that Roy views coping and adaptation as synonymous, as evidenced by the definition "adaptation is a process of coping with stressors" (Roy & Roberts, 1981, p. 57). Although viewing coping and adaptation as synonymous is not a problem in itself,

it becomes a conceptual problem because of its disparity with other traditional writings about coping and adaptation and because of its incongruity with the recent assumptions stated by Roy (1988).

Several authorities have discussed the concepts of coping and adaptation. White (1985) distinguished between adaptation and coping by stating that coping had a restricted meaning under the broader term of adaptation. He restricted coping to situations involving a fairly drastic change or problem that defied familiar ways of behaving and was very likely to give rise to uncomfortable affects like anxiety, despair, guilt, or shame, "Coping refers to adaptation under relatively difficult conditions" (White, 1985, p. 123). Adaptation more broadly refers to securing adequate information, maintaining satisfactory internal conditions, and keeping up some degree of autonomy—behaviors that may manifest themselves in any type of circumstance.

Lazarus and Folkman (1984) stated not all adaptive processes are coping. "Coping is a subset of adaptational activities that involves effort and does not include everything that we do in relating to the environment" (Lazarus & Folkman, 1984, p. 132).

Dubos (1965) pointed out that human beings' adaptation to their environment is not necessarily aimed at coping with the environment. Persons' adaptation to their environment goes far beyond coping. Human beings' behaviors may correspond to expressive behaviors that involve the use of environment for self-actualization. "Health in the case of human beings means more than a state in which the organism has become physically suited to the surrounding physiochemical conditions through passive mechanisms; it demands that the personality be able to express itself creatively" (Dubos, 1965, p. xviii). Dubos (1965) portrays adaptation as an active process that may include expressing oneself creatively or striving for self-actualization.

Roy (1988) recently categorized the assumptions of her model by the general principles of humanism and veritivity. The relevant components of humanism that are inherent in Roy's depiction of a person include creative power, purposefulness, holism, subjectivity, and interpersonal relationships. These assumptions would be better understood in relation to the Roy model if adaptation and coping were not viewed synonymously. The definition of adaptation needs to portray an active process as well as be broad enough to incorporate varying strategies and behaviors for interacting with the environment.

Coping and adaptation then, are not viewed as synonymous by recognized authorities. To alleviate some of the conceptual confusion, it

is suggested that coping and adaptation not be used as synonymous terms. It is also suggested that the definition of adaptation be expanded to include the meaning that is portrayed by Dubos (1965), an active process, to bring the model up to date and attain more consistency between the definition of adaptation and the assumptions.

Person as an Adaptive System

According to the Roy framework, the person is an adaptive system (Roy 1984). The system has input, a control device, and a feedback loop. The input of the system involves viable standards and *negative* feedback that act to maintain the system in dynamic equilibrium (Roy & Roberts, 1981, p. 58).

The notion of homeostatic, steady-state mechanisms that restore status quo is conveyed through the above description of the person as an adaptive system. Negative feedback means that after receiving "mismatch" information, deviation counteracting operations are triggered so as to bring the individual's or system's behavior back into congruence with the extant internal standards of the system's governing criterion values (Speer, 1970, p. 266). These are change-resistant operations.

On the other hand, positive feedback also begins with error or mismatch information resulting from a comparison of data about behavior with internal standards. The difference is that subsequent effector operations do not act to reduce the discrepancy but rather act to increase the divergence between the system's status and the original goal or standard values. The positive feedback process is constructive and is the vehicle by which systems grow, create, and innovate (Speer, 1970, p. 267). Although the process of positive feedback is congruent with the recently explicated assumptions (Roy, 1988), it has not been clearly described thus far in the adaptation model explanation of system.

Feedback processes have an impact on what types of behaviors can be considered adaptive behaviors. Highlighting the positive feedback-process of the person as an adaptive system would: facilitate understanding the individual as humanistic in the Roy model; facilitate the model's congruence with reality about how persons function; facilitate congruence of the description of the person as a system with the recent assumptions of the model; and facilitate congruence of the system processes with the system goals of survival, growth, reproduction, and mastery. Finally, further explication of feedback processes would be instrumental in understanding persons engaging in behaviors to attain higher levels of health or wellness.

Goals of Adaptation

According to Roy the goals of adaptation are survival, growth, reproduction, and mastery (Roy, 1984). Survival generally refers to the continuation of life. The Roy framework has defined growth as the increase in body size and/or changed structure, function, or regulatory processes until optimal maturity (Roy, 1984, p. 80). Reproduction commonly refers to bringing forth offspring. Thus, as defined, survival, growth, and reproduction are tied closely to a physiological view of adaptation.

Mastery, although not explained by Roy, is usually linked to a psychological view. The concept of mastery has generally been applied to behavior in which frustrations or developmental tasks have been surmounted and adaptive efforts have come to a successful conclusion (White, 1985). The concept of mastery has also been associated with problem solving or mastery over the environment (Lazarus & Folkman, 1984). Adaptive strategies concerned with managing emotions and maintaining self-esteem and a positive outlook would be difficult to determine with respect to the current goals of adaptation.

The Roy model would be strengthened by incorporating a system goal such as self-actualization, fulfilling potential, or achieving a valued end state in order to enhance congruence of the system goals with the current humanistic assumptions (Roy, 1988). Further, incorporating a sociological type goal, such as, socialization, adjusting self to a group, carrying out role functions, or achieving affectional adequacy would also add to the present description of system goals. The Roy framework's valuable description of the holistic person, coping through psychologic, self-concept, role function, and interdependence modes, is lost in the current description of the goals of adaptation. It is suggested that the goals of the person, of the adaptive system, be redefined to incorporate Roy's holistic and humanistic view of the person. In addition, because the system goals provide direction for the system outcomes, further explication of the system goals will facilitate identifying attributes of health as a system outcome.

Conclusion

"While nurses agree on highly abstract and complex concepts, they have many disagreements, much fuzziness, and multiple conceptual problems when they try to use the concepts to create a system for the transmission of knowledge as a rational base for practice" (Ellis, 1982, p. 410). This commentary is an effort to aid knowledge development through analyzing selected conceptual problems con-

tained within the Roy adaptation model and through offering suggestions for conceptual modification.

The following suggestions were made to remedy some of the conceptual problems and thus further strengthen the Roy adaptation model: (a) that adaptation refer to a process and health refer to an outcome state with each concept having a distinct definition; (b) that coping and adaptation not be used as synonymous terms and that the definition of adaptation portray an active process; (c) that system feedback processes be elaborated upon to highlight positive as well as negative feedback; and (d) that the goals of adaptation be expanded to include self-actualization, carrying out role functions, and achieving affectional adequacy. Parse (1988) recently stated that critiques are best conducted with a spirit of collegiality and with the intent of clarifying and fostering the development of ideas; it was in that spirit and intent that this critique was conducted.

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Response: Conceptual Clarification

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The underlying premise of the paper "Strengthening the Roy Adaptation Model Through Conceptual Clarification" is important. Conceptual problem-solving activity is key to knowledge development. Such activity is a welcome addition to theoretical literature in nursing. The call for such activity, and particularly dialogue about conceptual issues within the major nursing frameworks used for research, is crucial. As with the struggle to maintain a holistic view of the individual person, it is difficult to maintain the integrity of the whole knowledge development process in the process of analyzing nursing frameworks. This process involves theory development, including conceptual clarification and propositional relationships, as well as research strategies. The whole includes the assumptions as well as the concepts, the current literature as well as the history and milieu from which it comes. This response is the opportunity for the theorist to put forth a long view of the issues raised in the Artinian paper and to highlight directions for both conceptual clarification and further research with the Roy adaptation model.

Key Words: Adaptation, Health, Coping, Roy Model, Process

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Adaptation, Health, and Coping

Artinian points to ways in which the terms adaptation, health, and coping may be seen as synonymous. After a brief discussion of the use of the terms in Roy's works and in other literature, suggestions are made that *adaptation* be used to refer to the *process* whereby the *state of health* is obtained. Furthermore, she states that adaptation needs to be conveyed as an active process and to be distinguished from coping. Although each quotation from Roy is cited accurately, the emerging "theoretical entities" (Hacking, 1983, p. 26) are quite different from Roy's overall conceptualization of these terms and their interrelations.

Adaptation was from the beginning, and is to this day, a core concept of the theoretical framework. It is the goal of nursing as a practice discipline and is to be understood from the perspective of nursing as a scholarly discipline. Adaptation is both a process and a state. As a process, it involves a systematic series of actions directed toward some end. At a broad level of generalization, Roy conceptualizes this process for nursing as a function of focal stimulus and adaptation level. However, it is far from being a passive process, because the adaptation level includes all the person's capabilities, hopes, dreams, aspirations, and motivations, in other words, all that makes the person constantly move toward greater mastery. Adaptation will always be positive, active, and creative. Artinian notes particularly that the adaptive process is determined in terms of its effects in a given situation (Lazarus & Folkman, 1984, p. 140). In Roy's work this is precisely the distinction that is made. Note especially the specificity of the focal, contextual, and residual stimuli for the individual and also the indicators of effective adaptation (Andrews & Roy, 1986, p. 62).

Still the theorist considers adaptation as a state, i.e., the condition of the person with respect to the environment. Taking *time* as a dimension of the environment, the person or group may be viewed at a given time, and the state of adaptation may be described. This state is the cumulative effect of the on-going adaptive process, and describing it in cross-section does not negate the dynamic process. One might think of the analogy of stopping a video tape and examining a given frame of a total picture.

Coping is a related concept in this framework, but is given a particular place in understanding the adaptive process. In the tradition of Coelho, Hamburg, and Adams (1974) and of Lazarus, Averill, and Opton (1974; see Roy & Roberts, 1981, p. 56), coping relates to the strategies whereby adaptive processes are carried out. Coping strategies are at the behav-