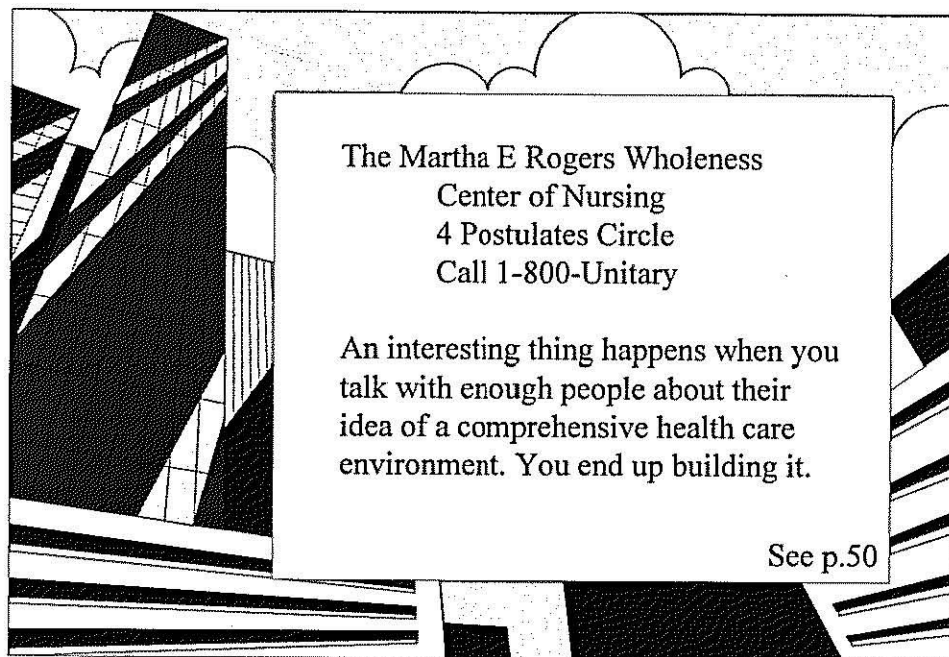


Visions



Infinite Potentials

The Journal of Rogerian Nursing Science

Visions: The Journal of Rogerian Nursing Science

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Editorial

This issue of *Visions* contains an interesting and creative mixture of articles and columns. We and the authors are interested in your comments. Please send a letter to the editors and/or contact the authors directly. We would really enjoy some feedback.

As this issue goes to the printer we are waiting eagerly for new manuscripts and contributions for columns so we can get started on the next issue. As we read through this issue we were struck with the number of unpublished doctoral dissertations listed in the references. We would like to suggest to those of you who have never written an article based on your dissertation to think seriously about writing one to send to *Visions* for review and possible publication. Remember that *Visions* is a peer reviewed journal and is listed in CINAHL (*Cumulative Index to Nursing and Allied Health Literature*), which makes the journal accessible to anyone who does a literature search.

We also await submissions to fill the cover box, *Infinite Potentials*. Be creative and share your ideas! Think about submitting a shorter piece for one of the columns. What controversial ideas in Rogerian nursing science do you want to explore or propose for consideration? How does your imagination flow while contemplating this science? What ideas intrigue you as a student beginning your scholarly exploration in Rogerian nursing science? Share with all of us! If you would like one of the editors to review a manuscript prior to formal submission, just send it in--we would be happy to assist you.

Unfortunately, we do sometimes receive manuscripts that do not meet our standards of quality and have to be rejected. Please read our guidelines for authors carefully before, during, and after writing a manuscript for submission to *Visions*. One problem that seems to arise often is use of only one Rogerian reference, Dr. Rogers' 1970 book, *An Introduction to the Theoretical Basis of Nursing*. Although this book will always be an important work, it should not be the only Rogerian reference used to prepare your article. Much of the information is outdated: both Dr. Rogers and the Science of Unitary Human Beings continued to evolve after 1970. Some more recent resources of interest to Rogerian scholars are as follows (arranged in chronological order):

- Malinski, V. M., & Barrett, E. A. M. (Eds.). (1994). *Martha E. Rogers: Her life and her work*. Philadelphia: F.A. Davis Co.
- Madrid, M., & Barrett, E.A.M. (Eds.). (1994). *Rogers' scientific art of nursing practice*. New York: National League for Nursing.
- Barrett, E.A.M., & Malinski, V.M. (Eds.). (1994). *Martha E. Rogers: 80 Years of Excellence*. New York: Society of Rogerian Scholars.
- Barrett, E.A.M. (Ed.). (1990). *Visions of Rogers' science-based nursing*. New York: National League for Nursing.
- Malinski, V.M. (Ed.). (1986). *Explorations on Martha Rogers' science of unitary human beings*. Norwalk, CT: Appleton-Century-Crofts.
- Recent issues of *Visions* and *Nursing Science Quarterly* are excellent peer-reviewed resources.

ROGERIAN NURSING SCIENCE: CELEBRATING THE LEGACY

Marilyn M. Rawnsley, RN;DNSc;CS

An earlier version of this paper was given as the keynote address at the 5th Biennial Rogerian Conference, June 1994, at New York University.

As we are all aware, the fifth biennial Rogerian conference is a watershed in the history of the Science of Unitary Human Beings. "By now," writes novelist Milan Kundera (1982, p. 244), "history is nothing more than the thin thread of what is remembered stretched out over the ocean of what has been forgotten." My purpose in addressing this conference is to celebrate the legacy of one splendid, shimmering, pulsating thread that irradiates an otherwise pedestrian tapestry of disciplinary lore. Let there be no ambiguity of inference, my bias is clear. I believe that there are only two persons in the annals of modern nursing who made a qualitative difference: Florence Nightingale and Martha Elizabeth Rogers. Nightingale lit a symbolic lamp; Rogers torched an eternal flame.

Coincidence and Resonance

The fact that they share a birthday is surely more than a curiosity. In a universe of pandimensional energy fields, such serendipitous events invite speculation. And so it is with my invitation last summer to be the keynote speaker at this fifth biennial conference. When I accepted the invitation, I expected that Martha would be physically present. My general intent was to pose new puzzles for nursing science to solve in the next century. But Martha moved on, and I wondered about my invitation. Was it simply coincidence or could it be a manifestation of the principle of resonancy? I chose

resonancy. Before explaining that choice, a caveat is in order. One of Dr. Rogers most endearing field manifestations was her un-failing sense of humor; I have prepared this address with that salient characteristic in mind.

Thus warned, let us consider my assumption of resonancy with what is undoubtedly one of my favorite passages in nursing literature:

In 1977, Rawnsley, of Boston University, framed her research solely within the Rogerian framework. This study marked a turning point for research in the Science of Unitary Human Beings. For the first time, hypotheses were derived from the Rogerian conceptual framework. (Malinski, 1986, p. 38)

Thanks to Violet Malinski, in 1986 I enjoyed my 15 minutes of Warholian fame. Was it simply happenstance then, that I would be the first person to keynote a Rogerian conference since her death? Rogers' principle of resonancy seems to explain this apparent coincidence in a more mysterious realm. You see, I study the phenomenon of loss. Loss of Martha Rogers is our here and now collective field experience. In respect for its magnitude, I set aside my original intent to wax abstract and philosophic. Instead, I became actively passive, allowing energy waves to flow into whatever patterning seemed harmonious. What has emerged is the substance of this address.

Loss and Healing

On the day I learned of Martha's passing, I remarked to colleagues, if you feel

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the earth moving it is because Rogerians everywhere are in mourning. This was not facetiously said. Mourning is a healing field motion, a medium of reconciliation. It is also a testimonial of meaning, that is, something significant has occurred, attention must be paid. Since Rogerians share the loss of Martha, we can also share the healing. Paying attention to our loss is an explicit goal of this address. To facilitate our collective field motion toward healing, I translated the processes described by Worden (1982) into language compatible with the Science of Unitary Human Beings.

Worden (1982) delineates the first phase of mourning as accepting the reality of the loss. For Rogerians, this phase involves acknowledging an irreversible manifestation of helicity, namely, Martha's passing. The essence of loss, as I have defined it in my writing and practice, is the experience of unwanted change. To say that Martha's death is an unwanted manifestation of the nature and direction of change is certainly an understatement. What we are feeling can be characterized as an uncomfortable patterning shift in the personal and collective fields of those of us whose life process is still evolving.

Worden's (1982) second phase speaks to feeling the pain of missing the other. This process is more appropriately understood by Rogerians as experiencing the temporal dissonance of integrality. Integrality postulates the essential connectedness of human and environmental fields. Death, Martha speculated, is a transformation of energy. While I cannot say anything meaningful about the transformative patterning of the human energy field we loved as Dr. Rogers, I can try to articulate the sense of temporal dissonance in the nature of our field connectedness. Simply stated, it doesn't feel right without her. I would prefer that she were physically here; I would prefer the anxiety of glancing toward her for a sign of encouragement; I would prefer to

be able to hug her again. Instead, I participate knowingly in healing as field motion toward harmony of reconciliation with that irreversible, unwanted helical patterning shift that constitutes Martha's passing.

Worden (1982) maintains that healing involves adjustment to the environment without the other. For Rogerians, resonating with relational patterning shifts seems a more appropriate explanation. If human death can be considered a transformation of the human energy field, then we may be experiencing the resonating waves of Dr. Rogers' transformation as a different configuration in our own energy field patterning.

Worden (1982) advises that a successful outcome of mourning occurs when emotional energy is withdrawn from the lost other and reinvested in new relationships. Withdrawing relational energy and reinvesting as if it were a commodity on the stock exchange of life is contradictory to Rogerian premises. Instead, Rogerians celebrate life through participating knowingly in its progress, through incorporating integral field patterning shifts as emerging diversity of our personal human field.

Each human field patterning is postulated to be unique. Logically then, all human relationships must be essentially incomparable. To illustrate, let us consider the human emotional patterning of jealousy. In a Rogerian worldview, jealousy is a useless, irrelevant passion. The question, "What does he see in her that he didn't see in me" has a simple answer. He sees her; a unique field. It is reasonable to say that his and her field connectedness constitutes a different relational patterning than either has experienced with anyone else. Just as no two children of the same biological parents have an exact parental relational patterning, no two couples can experience the same relational field patterning, even when one member of both dyads is the same person. Relationships cannot meaningfully be quantified as better or worse, but only as differ-

ent.

So whether we encountered her in a classroom, a conference, or in a Village cafe over cappuchino and cannolis, each of us has a our own relational patterning with Dr. Rogers. However, I can only know the truth of my own experience; I cannot presume equivalence with experiences of others. Each one's personal collage of memories is different. I present some of mine merely as an accessible medium for collective resonancy with the healing motion of reconciliation that this loss of Martha summons.

Martha E. Rogers, Memories Are Made of This

Context is critical to understanding our initial connection. I was enrolled in a doctoral program at Boston University in Counseling Psychology. This was, I reasoned, compatible with my interest and experience in psychiatric-mental health nursing. Like all dedicated novices in doctoral study, I signed up for the first course at a time that was convenient to my own teaching schedule. The elective lottery turned up a course on the history of education in the United States. During this course I realized that I was far more interested in examining historical antecedents of education in the discipline of nursing. When my first submission for publication was accepted in that area (Rawnsley, 1973), I walked down Boston's Commonwealth Avenue to the School of Nursing where I had earned a Master's degree 2 years before. A newly revised doctoral program focusing on research and theory development was in its first semester of implementation. Since only four students had been accepted, and one had declined admission, there was room for one more. Dr. Mary Conway, who at that time was the director of the doctoral program, urged me to apply quickly. Once accepted, she advised me to register for the course on theoretical foundations of nursing because *Martha Rogers was coming from New York University to participate in it*. I had no idea who she

was talking about, but from the way she said it I knew that I should. So, on a cloudy damp January Saturday, I sat in a Boston University classroom with three other doctoral students, several School of Nursing faculty, and some interested others, to greet a tiny woman in an elegant mink coat and well-worn tennis shoes. During that first session Dr. Rogers wrote on the board while she talked, and several attendees nodded their heads sagely. I, however, was dumbfounded. What had happened in academic nursing in the 2 years since I had earned a Master's degree? If this woman was a nurse, then what was I? And why were my classmates nodding in agreement? Did everyone understand what she was saying except me? Why hadn't I stayed in counseling psychology?

After 4 hours of mystification, I raced to the bookstore, got the "purple book," and read it that day. By the time the next class was held I had read it at least three times. On the way to Boston I made a vow. If, by the end of the session, I was still lost, I would admit defeat and go back to the sensible world of psychiatry. The class began, the words flowed forth, the wise heads nodded. There was no alternative; I took my chances on being exposed as unfit for doctoral study in nursing. "Excuse me, Dr. Rogers," I ventured, "I know that is the English language, but when you put those words together on the board in the way that you do, they lose all meaning for me." She put down the chalk and turned to examine this strange specimen. "Ah," she said, "an honest man." That throb of recognition initiated our conscious connectedness.

The musical theme from the animated movie *Aladdin* captures my intellectual metamorphosis. Martha described "a whole new world, a new fantastic point of view." It was not without trepidation that I proceeded. I realized, just as in the song, that I could never see things as I had seen them before. On alternate Saturdays that Spring of 1973,

Martha showed me wonder after wonder. And on alternate Wednesdays, Professors Conway and Hardy countered my enthusiasm with arguments derived from the dominant scientific mode of logical positivism consistent with Popper. In essence, the argument ran, if hypotheses that could be subject to falsification through empirical testing could not be derived, then the Rogerian conceptual framework failed to meet an essential criterion of a theory.

Daunted but not completely discouraged, I pursued, since impossibility is incompatible with Rogers' (1970) assumptions, a highly improbable dream. Perhaps I persisted out of desperation to resolve my personal dilemma of cognitive dissonance; perhaps it was my excited doctoral colleagues that I dared not disappoint; perhaps it was destiny. Regardless of source, what painstakingly emerged from my struggle was a classical deductive study design (Rawnsley 1977, 1986) whose purpose was to examine data relative to testable (read potentially falsifiable) hypotheses derived within the Rogerian conceptual framework.

At first, Martha responded to my efforts to correlate the perception of time passing with correlates of aging and dying. She met with me, she responded in writing on my initial drafts with comments such as, "it isn't clock time that you want." Never, however, did she suggest what I might want. But when the research proposal was ready and its intent was clear, I heard no more from her, and frankly, I was afraid to ask. The highly improbable dream of examining hypotheses derived from the Rogerian framework was realized in a completed dissertation (Rawnsley, 1977, 1986). I sent Dr. Rogers a complimentary copy, but received no reply. Naturally, I was happily surprised when events evolved into a faculty position at New York University's Division of Nursing, where professor emeritus Martha Elizabeth Rogers thought her lofty thoughts

in an office across from mine.

Discoursing in the Dark

I still felt intimidated in her presence, although that was clearly my own patterning of intellectual insecurity. Martha always graciously received me. On one occasion while in her office, she asked me to read something that she was writing for a presentation. Feeling flattered turned to feeling terrified when, as I rose to leave for my office she said, "I want you to read it here so that I can watch your face." I don't remember the content of that paper, but we moved somehow into a discussion on the interpretation of reincarnation within the Rogerian framework. Somewhere during our intellectual peregrinations, Martha leaned back in her chair and laughed. She said, "If someone were to come in here right now, they might think we know what we're talking about." I was stunned. What did she mean "we"? I wanted to believe that she knew and was patiently allowing me to observe that definitive knowledge unfold. But, could she be discovering as she spoke? Was she saying that this was actually an adventure into the unknown, sort of discoursing in the dark? Another encounter further consolidated my field patterning of intellectual anxiety.

The Empress Gives No Clues

I was assigned to teach a course in the NYU master's program called "Resonating Patterns of Human Behavior." I went to the department chairperson to request copies of previous syllabi. She opened a file drawer and pulled out reams of material. I went to my office anticipating an understandable guide. Instead I pored over the handouts and outlines with mounting confusion. There were readings on alcoholism, obesity, drug abuse, depression. I passed up an invitation to the Picasso exhibit at the Metropolitan Museum of Art. In retrospect, I think that going to see it might have been more helpful. Eventually I returned to the department chair and asked, "to show you

the depths of my ignorance, are resonating patterns of human behavior anything like oral psychopathologies?" Reaching for the file drawer, she said, with a perfectly straight face, "We don't use the concept of pathology around here." I shut the file drawer for her and retreated with my panic to my cubicle. Later that day, Dr. Rogers came into her office. "Martha," I pleaded, "I am in big trouble. I have to teach the course called Resonating Patterns of Human Behavior and I don't know what it means!" Martha paused, perhaps, I thought, to reflect before enlightening me with an explanation. She looked at me with twinkling eyes: "Heh, heh, heh," she chuckled, "you'll have fun with that." And that was that; not even a clue.

I wobbled on the edge of despair, gazing into the void. Then suddenly there was a bolt of insight; perhaps there was no correct way to think about this. Certainly she was not going to let me off the hook of my own ego by pacifying me with a rhetorical answer. I had a flashback to Boston University days. Dr. Rogers didn't rescue me during my dissertation and she wasn't about to do it now. Was she challenging me to have my own adventure? Was she requiring me to take responsibility for my own thinking? Was she encouraging me to trust myself? Since I had no alternative, I had to take the leap into self-faith. And for the next four semesters, I, and some of the brightest students I've ever learned with, did just that. We went exploring in a whole new world of shining, shimmering, splendor. I was dubbed "the resonator."

Orthodoxy, Heresy, and Places in Between

In the early 1980s, the Division of Nursing at NYU vibrated with Rogerian rhythms. Faculty, students, even alumni, moved through the classes, conferences, and halls speaking an esoteric dialect. Truly I was in the land of the blessed, and I was properly respectful of their status. I, of course, had never studied at NYU. I was an

outsider from Boston University invited to sit at the table of the duly elect.

After a while, I noticed an interesting phenomenon. Some members of this elite group spoke with an air of undeniable assurance, quoting Martha's writings chapter and verse. A less vocal minority scoffed in the safe company of like-minded heretics; they weren't buying it, it didn't make sense. There was a third group, larger but less prestigious than the first, who sought to secure special status from the heretics and the heathens. These scientific sophists responded to questions with a flurry of jargon; they knew the words if not the meaning. If inquiry persisted in a sincere attempt at clarification, these pseudo-spokespersons declined to respond with a disdain that clearly indicated that the inquirer was incapable of understanding. Troubled by this apparent schism, I shared my observations with Martha. "I have identified three types of people here," I confided, "the true-believers, the non-believers, and the make-believers. The third group is giving this conceptual system a bad name. I'm out to unmask them." Martha seemed amused by my analogy. She paused a moment, then smiling, replied "Well now, you just might be the one to do that."

Enlightened Skepticism

Thus emerged a fourth Rogerian persona, that of the enlightened skeptic. Enlightened skepticism has been well described by Weisman (1984, p.7):

The proper place for enlightened skepticism is midway between abject cynicism and bedazzled conformity. It is a frame of mind that both protects us against the inroads of dogma and offers an escape from dismal negativism. More important, the enlightened skeptic disputes and finds reconciliation in ideas and practices.

The patterning of enlightened skepticism characterizes my Rogerian contributions. Fortunately for me, there are persons

who keep requesting that perspective in Rogerian discourse. Each time I am approached to provide a critical response to Rogerian research, or to generate an original paper, I wonder if I can do it again, if I have anything more to add to the argument. I worry that my brain may be unable to perform such intellectual gymnastics one more time. So far, so good. Yet, inexplicably, I am not aware of insights that emerge until the challenge is presented. The tangible product truly seems to be a manifestation of helicity, integrality and resonancy, defying attempts at linear exposition. Each time I experience this unparalleled excitement I appreciate anew Martha's gift to me. The gift was not what I asked for, answers. Instead, it was a gift of confidence in my own imagination and curiosity. It was, and still is, a gift of personal freedom to explore and express what poet Henry David Thoreau once called the private sea .. the Atlantic and Pacific ocean of one's own being. Or, to paraphrase the lyrics made famous by that contemporary musical group, "The Eagles," it is the courage to take it past the limit one more time.

You Were Always on My Mind

My faculty proximity to Martha lasted merely two clock time years. Other dimensions of my life moved me away from NYU. But our distance was only geographic. Mysteriously, Rogerian field patterns intensified. I thought in a different language, I taught and practiced in ways to encourage others to personal, relational, and professional patterning exploration and expression. I accepted a Rogerian derived wisdom that there are no wrong choices in life, only possibilities not pursued.

Over the next decade my temporal contact with Martha was irregular and infrequent. We didn't correspond in any traditional ways. Still, I felt the connectedness of our relational patterning evolving toward diversity. Again, contemporary music provides the fitting phrase. This time it is

country singer Willie Nelson who conveys my sense of Martha's absent presence in my life. I can truthfully say, "Dr. Rogers, you were always on my mind." Although an appreciable manifestation of Martha's passing lies in loss of expectation of her physical availability, when I realize that I want more of her spoken and written wisdom so that I can experience wonder again through her words, I feel bereft. In trying to articulate this loss, I am beginning to appreciate what she means to me, and why she will stay on, and in, my mind.

The Mirror Image of Love and Loss

I conceptualize loss as the mirror image of love as inclusive connectedness. Just as relational paterings of love are pandimensional, so relational losses incorporate more than one meaning. Framing Bugen's (1977) schema on dimensions of loss within a Rogerian worldview is helpful in understanding the centrality of relational patterning, and therefore, of interpreting the meaning and value of temporal field dissonance as the patterning shifts.

Loss that is experienced as so profound as to render life empty and meaningless implies, in Rogerian terms, a pervasive patterning of field connectedness. If a relational patterning involves a totality or fusion of shared human field energy, then the loss or temporal unavailability of one field is felt as irremedial chaos in the other.

A second dimension of loss or disruption of shared field integrality occurring through the unavailability of one of the fields is manifested in the other as a deep and constant missing element in life. In a Rogerian sense, the loss can be described as reverberating energy patterning randomly directed as the valued immediacy of the unavailable other is felt as irretrievable.

A third expression of loss concerns, in a Rogerian sense, a scrambled field patterning that disarranges expected probabilities of everydayness. This loss, experienced in the absence of familiar

patterning of daily events, feels discomfiting or disorganized. Even when the lost familiar patterning was perceived as difficult or distressing as it occurred, nevertheless it is a patterning shift felt as restlessness or even loneliness as one's energy field configures differently.

Instrumental Friendship

Finally, there is the purely personal patterning that occurs when the loss is of one who was a symbol or reminder of our hopes and beliefs, of what the human spirit is capable of achieving. This fourth dimension of loss experience most closely expresses what Martha's passing means to me. French philosopher Paul Ricoeur (1981) explains metaphor as an innovative device of language that creates a condition of the possible. In writing on caring (Rawnsley, 1990) I have postulated the metaphor of instrumental friendship to explain professional-client connections as a dimension of human bonding. It is a highly meaningful construct to describe my relational patterning with Martha Rogers.

Transposed within a Rogerian frame, instrumental friendship describes a value patterning of integral human energy fields manifested as knowingly participating in actualizing mutual expectations. For some this manifestation is realized as personal support, companionship, entertainment or artistic goals.

Martha and I selectively shared ourselves. For example, I did not know her family, she did not know mine. We did not converse about most areas of our very separate lives. Our specific relational patterning, our human bonding of caring, our instrumental friendship was focused through intellectual pursuits. Meeting Dr. Rogers in that Boston University classroom in 1973 shaped my career patterning and changed my life. She was the source of inspiration for accepting the challenge to look beyond the obvious and to take the risk

of sharing what is seen. I am fully convinced that if she had not made her contribution in the discipline of nursing, then neither would I. Our instrumental friendship truly created a condition of the possible, advancing the argument for the Rogerian conceptual system as a substantive paradigm shift for nursing science.

Nursing Science in a New Millennium

What will happen now? Is there potential for instrumental friendship when the relational field patterning has been disrupted by death? The lament of Czelaw Milosz (1988, p. 371) on the passing of his poet friend resonates with my thoughts "... and this is what tormented me in those years I lived after you; a question: Where is the truth of unremembered things?"

This is my question too. That is why this address is intended as more than reminiscence of a remarkable woman. It is intended as more than a collective field healing activity. It is intended as a call to each of us to awaken to our own experience; to give voice to a personal Rogerian connectedness patterning in ways that insure that Martha's truths will not go unremembered. Like the visionary scientists of whom Weinberg (1993) has recently written, Dr. Rogers dreamed dreams of a final theory to explain our world. Now, it will be through our continuing scholarship that her rightful place in the historical company of other extraordinary thinkers will be secured.

There can be no successor to Martha Rogers, but there are many heirs. She brought her beloved discipline of nursing to the edge of a new millennium that, regretfully, she did not live to see. Now, we are entrusted not merely to preserve a memory but to fulfill a promise. Our mission is to share the gift of Martha to each one who seeks to know her through her work. Our collective commitment is to encourage each other, and all emerging and not yet emerged Rogerian scholars, to give voice to personal

perspectives. Through mutual respect and collegial sharing, through collective courage to take scientific risks, we can promote a living celebration of the diversity that will characterize the Rogerian Science of Unitary Human beings in the next century.

Epilogue

As I was driving on a familiar stretch of road a few days after Martha moved on, my thoughts were sadly of her and of the frustration of our loss. Where would we go from here? I thought to her "Come on, Martha, tell us, is death really a transformation of energy or what? If anyone can reach across to tell us it's you! It would help, you know, if you gave us some sign." There was nothing, nothing at all. Now why I expected such a definitive answer when she never gave me any before is a mystery to me. And then, was it imagination, inspiration, insight? Whatever its source, it was experienced as soft awareness flowing around and around and through me.... the silent resonant waves of a cosmic chuckle; "Heh, heh, heh, you'll have fun with that."

And so we should, for our legacy is a science of human liberation. Our challenge is the celebration of pandimensional connectedness. Our joyful obligation to the future is aesthetically imagined in the words of Russian poet Bella Akhmadulina (1983, p. 99):

*and because I am so mute,
and love the sounds of all words,
and am tired suddenly, as if dead,
sing, sing me.*

Thank you, Martha, we will.

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A DESCRIPTION OF THE ELDERLY FROM SELF-SELECTED ATTRIBUTES

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ABSTRACT

The number of elderly in America is increasing, and this increase is affecting all aspects of health care. Nurses are in a preeminent position to address the health care needs of the "graying society." However, negative societal attitudes toward the elderly are often incorporated into the beliefs of health care providers and influence behavior and the care given. These stereotypes and generalizations are not legitimate, and self descriptions of the aging are scarce in the literature. This study uses the Adjective Checklist by Gough and Heilbrun (1983) to identify self-selected attributes of a sample of 44 elderly persons between the ages of 63 and 96 who live in a retirement facility in Southeastern United States. The study contributes to nursing science in the area of the aging process by providing selected attributes so that nurses may possess a description on which to base their understanding of the elderly. Rogers' (1970, 1986, 1992) Science of Unitary Human Beings provides the theoretical approach for the study. With increasing numbers of elderly requiring health services, the nursing profession is challenged to investigate and disseminate research findings related to the aging process and health care practices for the elderly. The National Commission on Nursing Implementation Project Report (1989) recommends nursing research and nursing attention which is focused on the dynamics of the aging process in a section titled "Graying of America: A Serious Challenge." This study addresses that challenge.

Currently, the elderly population is growing faster than the world population as a whole (Cockerham, 1991). In the United States, there are 31,754,000 people 65 years old and over, 12.7 % of the population. It is predicted that by the year 2025, 18.7% of the population will be 65 years old and over (U.S. Bureau of the Census, 1993). Considering the impact of the elderly on the nation's health care now and in the future, it is imperative that health care providers acknowledge the need for and claim responsibility for an accurate understanding of the aging process, that is, a description which reflects the elderly as they see themselves.

The growth of the elderly population has significant implications for the health

care industry. While the increased elderly population will be placing increased demands upon the health care system and the nursing profession, it is a well known fact that this segment of the population has increasingly stronger political and legislative power. These factors complicate the solutions to the health care system problems of the elderly. Finally, our understanding of the elderly population has been influenced negatively by stereotyping them as victims of physical, mental and social decline. Tappen & Touhy (1983, p. 38) state, "The prevalent societal views of the aged have been so thoroughly incorporated into our attitudes and value systems that they unwittingly become a part of the design and conduct."

Nurses are not immune to these ageism attitudes (Benson, 1982; Heliker, et al., 1993; Marte, 1991; Perkins, 1991; Spier, 1992). They may be so ingrained in our personal and societal views that few nurses want to care for the elderly. "The area of

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geriatrics has not been perceived nor presented as a challenging work environment, and many talented and caring nurses have chosen other specialty areas" (O'Malley, 1988, p. 89). Those nurses who do care for the elderly may unknowingly allow ageism attitudes to impact the quality of care provided.

The commonly held negative societal views and stereotypes may not be legitimate. Victor (1987, p. 93) notes, "One of the most obvious sources of stereotypes is lack of information about the stereotyped group." Attitudes have been noted to correlate with knowledge (Perkins, 1991). Nurses need to be aware of the discrepancy between society's views and the elderly's views of the elderly in order to provide more appropriate care. In today's graying society, it is important to relinquish long-held stereotypes and generalizations for accurate information on the aging process.

Rogers' Science of Unitary Human Beings (1986) was chosen as the theoretical approach for this study because Rogers focuses on the life processes of human beings and their environments. Aging is viewed by Rogers as a normal process of changes which emerge as manifestations of the evolving pattern of a human being's life. As the population of the United States becomes older it is increasingly important to better understand the aging process. Rogers' (1986, 1992) conceptual system allows the researcher to view aging as a wholistic process with developmental change from conception to death. Cockerham (1991, p. 10) states "at each stage of life, a person takes on new social roles and responsibilities that accrue to those roles, and the person's status and relationships with other people are modified accordingly." Rogers' Science of Unitary Human Beings sets forth the theoretical premise on which this study builds by providing a framework for understanding the human developmental aging process of the elderly.

The relationship between Rogers' theoretical basis of nursing and the lifespan development framework has been well established by Reed (1983, 1989, 1991). According to Reed, Rogers' principles of homeodynamics parallel the principles of the lifespan developmental framework. Reed (1989) describes development as a "process of trade-offs" (p. 144). In an effort to provide holistic health care to the elderly, providers must acquire an understanding of human development of the elderly. She has noted that there is sparse research on the mental health of the aged and developmental issues (Reed, 1989). Further, she notes that nursing literature with a theoretical framework that focuses on the mental health of the elderly is also sparse. Likewise, Moore, Newsome, Payne, and Tiansaward (1993) and Roberts (1990) report a paucity of nursing research with a theoretical framework related to gerontological nursing.

This study was carried out as a secondary analysis of existing data that builds on four previous studies by Alligood (1986, 1990, 1991, 1992). Three earlier studies tested the relationships among creativity, actualization and empathy in:

1. 236 adults; ages 18-60 years
2. 47 adults; ages 61-92 years
3. 44 adults; ages 63-96 years

The fourth study was a test of Rogers' theory of aging, among 221 men and women between the ages of 55 and 94, with regard to perception of time, sleep patterns, and activity. In all of the studies, findings either failed to support the theory or yielded mixed support (Alligood, 1991) and those findings have been replicated.

Rogers (personal communication, 1984) had once suggested that "adjectives of the field" were useful to consider in identifying variables for study in the Science of Unitary Human Beings. That is, the adjectives are descriptive unitary pattern manifestations of the human field. We reasoned

that, although the focus of Rogerian science is unitary, study of a group of human beings who have reached a similar period in their lives, such as being over 60 years old, retired, and living in a retirement facility, may contribute to our understanding of the field pattern of the aging process.

Therefore, this descriptive study was undertaken to better understand the elderly as they describe themselves through the selection of adjectives. In the third study noted above the Adjective Check List (Gough & Heilbrun, 1983) was used as a second measure for creativity as it had been used in other Rogerian studies (Cowling, 1986; Ference, 1986). As the subjects responded to all 300 adjectives in that study and only 19 were used in the creativity scale, it was reasoned that the data from the Adjective Check List were rich with self-descriptive attributes from those 44 elderly adults. It was further reasoned that those adjectives would manifest the pattern or characteristics of this elderly group as they describe themselves. Therefore, this study was carried out to better understand how the elderly describe themselves as they select among 300 adjectives.

The National Commission on Nursing Implementation Project Report (1989) identified three challenges for nurses in the section "Graying of America: A Serious Challenge." The Project recommends that nursing research and nursing attention focus on the dynamics of the aging process, ongoing care of persons with chronic conditions, and promotion of maximum independence and self sufficiency. This research addresses the need to study the dynamics of the aging process.

Purpose

The purpose of this study was to describe attributes of a select group of elderly as self-reported on the Adjective Checklist by Gough and Heilbrun (1983). This study investigates the research question, "How do the elderly describe them-

selves when asked to do so by selecting from 300 adjectives?"

Design

This study used a cross sectional descriptive research design. The study involved a secondary analysis of existing Adjective Check List data collected in an earlier study by Allgood (1992). Catanzaro (1988) identifies selecting among her list of methods of accessing qualitative data.

Sample

This study involves a convenience sample of 44 elderly persons between the ages of 63 and 96 who live in a retirement facility in the Southeastern United States and volunteered for the study. The sample was composed of 37 females and 7 males, 84% and 16% respectively. Three of the participants were single, one was married, 14 were divorced, and 26 were widowed. The majority were Caucasian but Native American, Asian and others were represented. The majority of participants were Protestant, 35 subjects (81.4%). The other subjects were classified as Catholic, Jewish, Other, or None. Six participants were 85 years old or over.

Methods

As mentioned earlier, this was a secondary analysis study of data collected previously. A volunteer sample of elderly persons between the ages of 63 and 96 who live in a retirement facility in the Southeastern United States completed the Adjective Check List by Gough and Heilbrun (1983). The Adjective Check List was selected for that earlier study because it had been linked conceptually and theoretically when used previously in Rogerian studies (Cowling, 1986; Ference, 1986). "The Adjective Check List (ACL) consists of 300 adjectives and adjectival phrases commonly used to describe a person's attributes" (Gough & Heilbrun, 1983, p. i). "The roots of the Adjective Check List are in language itself...." (Gough & Heilbrun, 1983, p. 1). Although a search of nursing, medical, and

allied health literature (CINAHL, Medline, and Psychological Index) revealed no use of the Adjective Checklist in this way, the developers encourage innovative uses of the Adjective Check List (Gough & Heilbrun, 1983). A review of the Adjective Check List Bibliography (Gough & Heilbrun, 1980) demonstrates many ingenious applications. The possibilities for use are limitless (Gough & Heilbrun, 1983). The authors reasoned that, because the participants had responded to all 300 adjectives, an analysis of frequencies would reveal a self description of a sample of the elderly population. Human subjects approval of this project was obtained from the University IRB. Participants were protected by a briefing period prior to volunteering and being informed that they could withdraw from the study at any time. Data were collected with subjects seated at tables in a well-lit room which was centrally located in the retirement facility (Allgood, 1992).

Analysis

Attribute frequencies were analyzed using the Statistical Analysis System (SAS) computer program. The SAS computer program can be used for a wide variety of statistical analyses. "This package includes all basic descriptive and inferential statistics, plus additional programs for cluster analyses, Guttman scalogram analyses, multiple regression, factor analyses, canonical correlation, logit/probet analyses, and spectral analyses" (Polit & Hungler, 1991, p. 545).

Findings

Initially, the measure of significance was arbitrarily set at 80%. The initial analysis of frequency revealed that six adjectives were chosen by 35 or more of the 44 participants representing 80% of the sample. These six adjectives were *cheerful, friendly, good-natured, honest, loyal, and reliable*. The six adjectives selected were all relational and very positive terms. That is, the adjectives selected were ones which the

subjects seemed to perceive as characteristic of their relationships. Interestingly, the manifestation of pattern emerging from the six selected adjectives suggested two themes. The adjectives, *cheerful, friendly, good-natured, honest, loyal, and reliable* elicit two predominant themes, one related to disposition and the second related to moral integrity. *Cheerful, friendly and good-natured* are attributes related to disposition of a person. *Honest, loyal and reliable* are attributes associated with moral integrity or moral character of a person. Based on these six adjectives chosen by 80% or more of the sample, it appears that the majority of the participants in this study viewed themselves as persons with moral integrity and moral character and good-natured dispositions. These beginning descriptive analyses are based on Catanzaro's (1988) qualitative techniques of counting and noting patterns and themes.

Due to the limited number of attributes selected at 80%, the point of significance for the next round of analysis of frequency was set at 60% of the respondents. At 60% the number of adjectives selected increased to 27. Again, it was noted that the attributes selected were all positive terms. The additional 21 adjectives identified in this second round included: *active, affectionate, appreciative, capable, conscientious, considerate, cooperative, dependable, easy going, fair minded, forgiving, generous, gentle, helpful, kind, pleasant, reasonable, sincere, sociable, sympathetic, and thoughtful*. The composite of the 27 attributes selected are presented in Figure 1.

Interestingly, there were 46 adjectives that no one selected. The attributes that no one chose are presented in figure 2. These attributes have negative connotations associated with all of them except for one which was *handsome*. It is interesting to note that none of the seven male participants identified themselves as handsome.

Likewise, it was also noted that no male subject identified himself as attractive. The sample did not have sufficient numbers of males for any substantive gender analysis.

It has been suggested that the elderly may be categorized into age divisions such as younger old, old, and oldest old (Nelson, 1990; Robbin, 1991; Wondolowski & Davis, 1991; Yurick, Spier, Robb, Ebert, &

Magnussen, 1989). However, this study had an insufficient sample size to determine tendencies within age related groups although all geriatric age groups were represented in the sample.

Discussion

Despite the growing number of elderly in society, the general populace and health care providers continue to have mis-

Figure 1

Attributes Self Selected by 60% of the Sample

cheerful *	capable	gentle
friendly *	conscientious	helpful
good-natured *	considerate	kind
honest *	cooperative	pleasant
loyal *	dependable	reasonable
reliable *	easy going	sincere
active	fairminded	sociable
affectionate	forgiving	sympathetic
appreciative	generous	thoughtful

* most frequently selected attributes ranged from 80% - 91%

Figure 2

46 Adjectives Which no one Selected

apathetic	fickle	selfish	unrealistic
bitter	greedy	severe	unscrupulous
bossy	handsome	shallow	unstable
coarse	hardhearted	shiftless	vindictive
cold	hostile	show-off	
complaining	infantile	smug	
cowardly	irresponsible	snobbish	
cruel	nagging	spineless	
deceitful	obnoxious	stern	
distractable	prejudiced	sulky	
dominant	quarrelsome	thankless	
egotistical	reckless	tough	
faultfinding	rude	unfriendly	
fearful	self-centered	unkind	

conceptions based on stereotypes and ageist attitudes. Negative stereotypes such as *isolated, asexual, slow, poor, ill, lonely, purposeless, dependent, neglected, bored, rejected, forgetful, irritable, and depressed* are often used when referring to the elderly (Cockerham, 1991; Harris, D., 1990; Harris, L., 1975; & Victor, 1987). This negative perception is perpetuated by the media's representation of the elderly (Biggs, 1993; Harris, D., 1990; Harris, L., 1975). However, this negative stereotype appears to be a distortion of reality based on the findings of this study.

This sample of elderly persons selected attributes that described themselves in positive terms rather than negative. This finding is consistent with those of other studies. Biggs (1993), Cockerham (1991), Harris (1975), Robbin (1991), & Victor (1987) discuss the self-description of the elderly as being positive. "Older people generally describe themselves as friendly, wise, alert, adaptable, open-minded and good at getting things done; in fact, in ways little different to possibly idealized self-attributes at any age" (Biggs, 1993, p. 54). Eighty percent of the sample in this study selected attributes of *cheerful, friendly, good-natured, honest, loyal, and reliable*. This is basically opposite of typical societal views of the elderly. In spite of society's views, the elderly tend to view themselves in positive terms (Cockerham, 1991).

The elderly are not immune to society's views, however. Labeling can create a self-fulfilling prophecy effect on the elderly. Some older persons may be more susceptible to labeling and adapt and incorporate negative attitudes into their self-perception. We, as nurses, must recognize and foster positive self-identity in the elderly. As Benson (1992) proclaims, "Of paramount importance is the fostering of positive attitudes among nurses toward the elderly in view of a pervasive 'ageism' in our society" (p. 28). This study has implications for the nursing

profession and its role in the entire health care system.

The National Commission on Nursing Implementation Project Report (1989) challenges nurses to focus attention on the dynamics of the aging process. This calls on nurses to prepare for and address the needs of the growing elderly population. Nurses can take a leading role in dispelling the negative stereotypes associated with the elderly and in promoting positive attitudes toward the aged. Increased numbers of nurses will be needed to accommodate the rapidly growing elderly population. Nurses must also be on the forefront of acknowledging that the elderly of today are not the elderly of yesterday. Today's elderly identify positive self-attributes, thereby influencing the structure of health care delivery systems. Health care providers must relinquish long held negative stereotypes for a more accurate understanding of the elderly in order to meet the needs of the elderly and provide effective health care. We must "promote caring and positive attitudes rather than disinterest and prejudice" (Slevin, 1991, p. 1203).

This study used a convenience sample from a high rise retirement facility. These subjects were independent, active, and participating. Therefore, these results cannot be generalized to the elderly population as a whole as the elderly population is not a homogeneous group. Those persons residing in retirement communities may have very different experiences than persons in nursing homes. Vice versa, early studies of elderly in nursing homes are not applicable to today's community dwelling elderly.

Another possible limitation of the study is the instrument used. Although the Adjective Check List includes adjectives such as *absent-minded, foolish, coarse, cold, and slow* that are often used in describing the elderly, others are absent. For example, *lonely* and *depressed* which are often associated with the elderly are not included

among the 300 adjectives. Future research could compare this group to nursing home residents or community dwellers. Secondary analyses of other Adjective Check List data sets (Cowling, 1986; Ference, 1986) would provide comparisons across the adult lifespan. Finally, a longitudinal study could be conducted to investigate if self-selected attributes correlate to those adjectives selected by a health care provider or family member.

In conclusion, this study proposed to describe the elderly using the frequencies of self-selected attributes on the Adjective Check List (Gough & Heilbrun, 1983). An innovative use of the Adjective Check List was initiated. Findings suggest a composite of 27 positive adjectives as a beginning description of the elderly. Two themes were noted in the six most frequently selected adjectives. Perhaps the best understanding of the findings of this study comes by interpreting them according to the Rogerian perspective set forth recently by Allgood (1994). That is, that this elderly sample's selection of adjectives provides their "perception of the nature of [their] pattern" and their perception is an "expression of [their] wholeness" (Rogers, 1970, p. 65).

Although more research is indicated, this study begins to address the challenge set forth in the National Commission on Nursing Implementation Project Report (1989) of researching the dynamics of the aging process. Also, the study contributes to the body of nursing research with a theoretical framework related to gerontological nursing. Rogers' (1970) theoretical basis of nursing, which highlights developmental changes throughout life, was used as the framework for this study. This descriptive study represents a beginning effort to understand the aging process of the elderly through self description.

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MEASURING MUTUAL PROCESS: DEVELOPMENT AND PSYCHOMETRIC TESTING OF THE PERSON-ENVIRONMENT PARTICIPATION SCALE

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ABSTRACT

The study was designed to develop and determine the psychometric properties of the Person-Environment Participation Scale (PEPS). Participation, defined as the experience of continuous human-environment mutual process, is proposed as one manifestation of field pattern within Rogers' Science of Unitary Human Beings. In four testings of the PEPS, using three overlapping samples, internal consistency reliability ranged from .90 to .94 and test-retest reliability was .74 at 2-6 weeks. Principal Components Factor Analysis with oblique rotation revealed two components, labeled Ease and Expansiveness, which explained 56.5% of the total instrument variance. There were moderate Pearson correlations between the PEPS and the Fatigue Experience Scale ($r = -.40$), the Symptom Experience Scale ($r = -.42$), the Power as Knowing Participation in Change Test ($r = .69$), and the Sense of Coherence Scale ($r = .70$). In a discriminant analysis, the PEPS correctly predicted 58% of the distribution between cases of one or more health problems/symptoms and no health problems/symptoms. It was concluded that the PEPS has demonstrated sufficient reliability and validity to recommend its use in clinical health studies.

From its inception, the notion of mutual process has been central in the Rogerian Science of Unitary Human Beings (Rogers, 1970, 1980, 1986). Initially, the "mutual interaction between the human field and the environmental field" (Rogers, 1970, p. 97) was called the principle of reciprocity. Ten years later, (Rogers 1980) replaced the principle of reciprocity with the principle of complementarity because she had found that the term "reciprocity" connoted separate human and environmental fields. Complementarity, according to Rogers (1980), better expressed the continuity, simultaneity, and mutuality of human-environmental field processes. Still later, Rogers (1986) replaced complementarity with integrality, which she claimed best expressed her idea of "continuous, mutual human field and environmental field process" (p. 6), and

reflected a synthesis of her postulates of openness, energy fields, pattern, and four-dimensionality (changed to pandimensionality in 1992). "The principle of integrality maintains that boundaries which separate fields are imaginary. Pattern does not separate fields, but it does distinguish one field from another" (Sarter, 1994, p. 47).

The Science of Unitary Human Beings proposes that human and environmental field mutual process is reflected in manifestations of field patterning that can be perceived and measured. However, measurement of manifestations of field patterning has been hindered by the limited availability of instruments consistent with the tenets of Rogerian science. The present study was designed to develop and determine the psychometric properties of the Person-Environment Participation Scale (PEPS). This scale measures human-environment participation, which the author postulates to be one pattern manifestation of mutual process.

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Conceptual Framework

Within Rogerian science, a human being is defined as an energy field, and the environment is also defined as an energy field. These fields are open and continuous. In contrast to other models, which describe interaction between separate systems, Rogers stated that the human and environmental fields are integral (mutual process), and indivisible. Mutual human-environment process is characterized by dynamically changing pattern. As an abstraction that gives identity to the field (Rogers, 1986), pattern cannot be directly measured. However, manifestations of field patterning are observable and measurable.

In keeping with Rogerian science, Bohm (1990, p. 284) proposed the label *participation*, to represent the processes of "partaking of" and "taking part in" the whole, as distinguished from "interaction between" separate systems. As a manifestation of field pattern, participation is defined here as the experience of expansiveness and ease of continuous human-environment mutual process.

Review of the Literature

Measurement of Rogerian Concepts.

Developing instruments that are compatible with Rogerian science has been challenging. Such instruments must reflect the unitary and irreducible nature of the human being rather than the person as the sum of multiple parts. A review of the published nursing literature yielded seven instruments that have been developed to measure different manifestations of the pattern of human-environmental mutual process.

Ference (1986) developed The Human Field Motion Tool (HFMT) to measure human field motion as an index of human synergistic development. The HFMT shares one item, passive/active, in common with the PEPS. Although the HFMT has been used in several studies (Barrett, 1986; Benedict & Burge 1990; Gueldner, 1986),

Gueldner (1986) reported problems in using the instrument with elderly persons. In particular, subjects with a low level of formal education had difficulty understanding items such as *propel*, *finite*, and *transcendent*. In addition, it was difficult for elderly subjects to record written responses without assistance. Based on her problems in using the HFMT, Gueldner (1993) developed an alternative measure of energy field motion, the Index of Field Energy (IFE).

Barrett (1990) developed the Power As Knowing Participation in Change Test (PKPCT) to measure the construct of power which "dynamically describes the way humans interact with their environment to actualize some potentials for unitary change" (Barrett, 1990, p. 161). The components of power measured in the PKPCT are awareness, choices, freedom to act intentionally, and involvement in creating change. This instrument has been used in a number of unpublished dissertations (e.g., Krauss, 1991; Rapacz, 1991). Published studies using the PKPCT are just beginning to appear (Bramlett & Gueldner, 1993; Dzurec, 1994; Wynd, 1992). Conceptually, participation appears to be similar to but broader than the awareness manifestation of power.

Hastings-Tolsma (1994) developed the Diversity of Human Field Pattern Scale (DHFPS) to measure the construct of diversity of human field pattern. Paletta (1990) developed the Temporal Experience Scales (TES) "to measure the concept of temporal experience as a pattern representative of the developmental process" (Paletta, 1990, p. 239).

Johnston developed Johnston's Human Field Image Metaphor Scale (HFIMS) to measure "individual awareness of the infinite wholeness of the human field," by assessing "individual perception of potential and a perception of the integral nature of one's human and environmental fields" (Johnston, 1994, p. 7). Conceptually, participation appears congruent with Johnston's

(1994) proposed domain of human field image labelled integrity, which she suggests "includes manifestations of the perceived human-environmental mutual process" (p. 8).

Carboni (1992) developed the Mutual Exploration of the Healing Human Field-Environmental Field Relationship instrument to provide descriptive data about the mutual process within the context of a healing nurse-client relationship. In comparison, participation addresses the individual's experience of the human-environment field

mutual process in any context. Carboni used terms such as *flowing*, *fluctuating*, and *harmonious*, which are conceptually compatible with participation, to characterize "the changing configurations of energy field patterns" (p. 87) between nurse and client.

Thus, at least seven instruments have been developed to measure or describe the field pattern manifestations of motion, power, diversity, temporal experience, image, and mutual process in a healing relationship (See Table 1). The PEPS extends the ability to measure diverse pattern mani-

Table 1
Seven Instruments Measuring Manifestations of the Pattern of Human-Environmental Mutual Process

<u>Investigator</u>	<u>Instrument</u>	<u>Concept</u>	<u>Reliability</u> α	<u>Retest</u>
Ference (1986)	Human Field Motion Tool	Human Field Motion	NA	.70
Gueldner (1993)	Index of Field Energy	Human Field Motion	NA	NA
Barrett (1990)	Power as Knowing Participation in Change Test	Power	.96	.57-.90
Hastings-Tolsma (1994)	Diversity of Human Field Pattern Scale	Human Field Pattern Diversity	.81-.83	NA
Paletta (1990)	Temporal Experience Scales	Temporal Experience	.74-.82	NA
Johnston (1994)	Human Field Image Metaphor Scale	Human Field Image	.91	NA
Carboni (1992)	Mutual Exploration of the Healing Human Field-Environmental Field Relationship Instrument	Human-Environment Mutual Process	NA	NA

NA = not available

festations by distinctively measuring experienced expansiveness and ease of mutual process.

Similar Concepts

In addition to identifying available instruments, the literature was reviewed for concepts that might assist in clarifying participation. Phillips and Bramlett (1994) proposed a new concept labeled "integrated awareness" as "the key to the pattern of mutual process" (p. 22). They described integrated awareness as "a unifying schema of inner peace, serenity, well-being, and power" (p. 30), with the essential attributes of authenticity, transcendence and unity. Of particular relevance to the present study was Phillips and Bramlett's description of the perception of integrated awareness. They stated, "the perception of the moment of integration (mutual process) may be manifest as 1) a harmonious wave where the fields meet in a pattern of synchronicity, 2) a chaotic wave when fields meet in patterns of dissonance, or 3) where field wave patterns counterbalance to form a dampened wave form" (Phillips & Bramlett, 1994, p. 22). This conceptualization of how integrated awareness may be manifested could apply as well to participation, which goes beyond perception of field process.

Another relevant conceptualization comes from the work of Haggerty and colleagues (1993). In seeking an organizing framework for an understanding of the nature of human relationships, they described a theory of human to human relatedness in which people move through different states such as connectedness, disconnectedness, parallelism, and enmeshment. Social processes such as sense of belonging, reciprocity, mutuality, and synchrony, were suggested as contributing to movement. Although this theory is not consistent with Rogerian science, the language used to describe two of the states suggest possible manifestations of participation. For example, connectedness is described as involvement

that promotes a sense of comfort, well-being and anxiety-reduction, and enmeshment describes involvement coupled with discomfort and anxiety. In contrast, disconnectedness and parallelism are incompatible with Rogerian science as they describe lack of involvement, which would be impossible given field integrality.

Development of the Person-Environment Participation Scale (PEPS)

Through a retroductive process of reading and reflection (Hanson, 1958) about person-environment mutual process, five content areas that seemed to best characterize possible aspects of participation were identified: *comfort*, the degree of flexibility associated with participation in change; *influence*, the perceived ability to be involved in change; *continuity*, the perceived smoothness or harmony of energy; *ease*, the degree of exertion or effort associated with participation; and *energy*, the experience of dynamic change.

The 7-step, semantic differential, bipolar rating technique (Snider & Osgood, 1969) was selected for the PEPS. The investigator initially generated 15-20 bipolar pairs for each of the five content areas. The pairs that seemed to best reflect the content areas were selected by the investigator for content validity testing.

Psychometric Testing of the PEPS Content Validity

Content validity was established in three rounds. The initial version of the instrument, containing 39 bipolar pairs that represented the evaluative, potency, and activity factors of the semantic differential technique (Snider & Osgood, 1969), was submitted to 23 nursing graduate student judges who were familiar with the SUHB. The judges were provided with a copy of the definition of each content area and a list of the bipolar pairs by content area. They were asked to indicate whether each of the bipolar pairs "fit" its content area and whether the words were bipolar. As a result of

feedback, 17 pairs were removed, and 4 pairs of words were revised.

In the second round of content validity testing, the remaining 22 bipolar scales were submitted to three nurse educators who had studied the SUHB. As a result of their ratings, seven additional pairs were removed, and eight pairs were revised. In the third and final content validity round, the remaining 15 bipolar pairs were submitted to three other nurse educators who also had studied the SUHB. All 15 pairs received 100% agreement on their congruence with the content areas.

The current version of the PEPS contains 15 bipolar pairs with seven numerical gradations in a semantic differential format. The bipolar pairs in the instrument are: *harmonious/ dissonant*, *integrated/fragmented*, and *connected/separated* (representing the original content area of continuity); *effortless/ laborious*, *flowing/clogged*, and *smooth/turbulent* (representing ease); *comforting/discomforting*, *flexible/inflexible*, and *calm/ agitated* (representing comfort); *powerful/ powerless*, *active/ passive*, and *manageable/unmanageable* (representing influence); and *full/empty*, *expanding/shrinking*, and *energetic/lethargic* (representing energy). In order to reduce possible response set, nine of the pairs were positioned so that what might be regarded as the "more desirable" (e.g., manageable vs. unmanageable) word appeared on the left side of the scale. Alternating with these pairs were six pairs where the possibly "less desirable" (e.g., discomforting vs. comforting) word appeared on the left side of the scale. Scores were adjusted so that higher scores represented "higher" perceived participation; the range for the summative score was 15-105. The concept, "participation," was labeled as "my interaction with my environment," to reflect language that would be familiar to the lay person.

Samples

Three overlapping samples were used through four testings to determine reliability and construct and concurrent validity of the PEPS.

Sample 1- The initial reliability and construct validity testing, testings one and two, used a sample of 239 ambulatory, adult volunteers. Participants were recruited from staff, faculty, and students of several colleges in the mid-Atlantic region.

Sample 2- Six months following initial testing, the PEPS was again administered, testing three, to a sample of 125 participants. The majority of these participants (n=104) had responded to the previous reliability and construct validity study and could be contacted through interdepartmental mail; the remaining 21 participants were newly recruited ambulatory adults from among university students.

Sample 3- One year following the initial testing, the PEPS was again administered, for testing four. The sample was comprised of 136 participants who had responded to two of the three previous testings and 72 ambulatory adults newly recruited through snowball convenience sampling. Individuals with a history of cancer, people over 65 years of age, and persons with a high school education or less were especially sought. The demographic and health-related characteristics of each sample are presented in Table 2.

Procedure

Potential participants were approached individually and in groups by way of face to face interaction or through interdepartmental mail. Volunteer study participants were given the PEPS with a cover letter, a background information form, and a consent form. Participants were asked to give their name and address if they were willing to participate in follow-up studies. The instruments were mailed to participants

Table 2

Descriptive Characteristics of the Samples

	Samples		
	1 (N = 239)	2 (N = 125)	3 (N = 208)
<u>Characteristic</u>			
Age range	20-91	21-91	22-89
Mean age	40	42	53
Females (%)	62%	79%	75%
College education or higher (%)	74%	83%	34%
Caucasian (%)	93%	98%	98%
Married (%)	64%	70%	70%
Employed (%)	91%	97%	77%
Income > \$50,000 (%)	51%	59%	53%
Have at least one health problem/symptom (%)	58%	45%	52%

with a postage prepaid response envelope. All instruments contained identification codes, and all participants were given written assurance of confidentiality. The study protocols were approved by university committees for the protection of human subjects.

Internal Consistency and Test-Retest Reliability

To assess consistency of performance across the items, the internal consistency reliability was measured at each testing. The

Cronbach's alpha coefficient was .91 for Sample 1 (N = 239). Cronbach's alpha for Sample 2 (N = 125) was .90, and for Sample 3 (N = 208) was .94. The test-retest reliability for the instrument, using a 2-6 week interval, was $r = .74$ for Sample 1 ($n = 122$). Stability of participation at six months was $r = .52$ ($n = 86$), and at one year was $r = .60$ ($n = 72$) (See Table 3).

Construct Validity

Using Sample 1, the PEPS items (bipolar pairs) were subjected to a principal components analysis in order to reduce the

15 items to their simplest scale structure. Oblique rotation was used because, in a unitary human being, it was expected that components would be interrelated. Applying Kaiser's criterion of using all unrotated components that have eigenvalues greater than 1.00 for subsequent rotation, two components were extracted and rotated. With the minimum cutoff loading for interpretation set at .40 (Stevens, 1992, p. 384), all 15 items were retained. This solution explained 56.5% of the total variance in

variance, was labeled *ease of participation*. Two of the fifteen items (*flowing/clogged* and *harmonious/dissonant*) loaded on both components, although each item loaded higher on component one (See Table 4). The Cronbach alpha internal consistency reliability coefficient for component one (expansiveness) was .91, and for component two (ease) was .88.

Construct validity was also assessed by examining the relationships between

Table 3

Reliability of the PEPS

Testing	Sample Size	Sample #	Participation Mean	sd	Range	Cronbach's Alpha	Stability
One	239	1	78.4	15.3	17-105	.91	
Two	122	1	81.3	14.6	40-105	.92	.74 (2-6 wks) ^a
Three	125	2	82.1	11.8	40-103	.90	.52 (6 mos) ^b
Four	208	3	78.5	16.2	26-105	.94	.60 (1 yr) ^c

a n = 122
 b n = 86
 c n = 72

the instrument (See Table 3).

Analysis of the first principal component indicated that in descending order, the highest loadings were for the *full/empty*, *active/passive*, *expanding/shrinking*, and *powerful/powerless* bipolar pairs representing the initial content areas of energy and influence. This component, which accounted for 46.5% of the total variance, was labeled *expansiveness of participation*. Analysis of component two indicated that the highest loadings were for the *smooth/turbulent*, *calm/agitated*, and *effortless/laborious* bipolar pairs, representing the initial content areas of ease and comfort. Component two, which accounted for an additional 10% of the total

participation and manifestations of field pattern relevant to health. In particular, the relationships between participation and perception of fatigue and symptom experience were assessed for Sample 3 (N = 208). The concepts of fatigue and symptom experience were selected because they appear to be common manifestations which, intuitively, are consistent with reduced expansiveness and/or ease of mutual process. Fatigue was measured by the Fatigue Experience Scale (FES) (Leddy, 1995c), a new, 15 item, 7-point semantic differential scale that measures expressions, extent, and evaluation of fatigue. The Cronbach's alpha coefficient for internal consistency reliability of the FES

Table 4

Principal Components Analysis with Oblique Rotation of the Person-Environment Scale (N = 237)

Item	Component	Component
	1 (Expansiveness)	2 (Ease)
full/empty	.83	
active/passive	.77	
expanding/shrinking	.74	
powerful/powerless	.73	
integrated/fragmented	.69	
flexible/inflexible	.65	
connected/separated	.61	
energetic/lethargic	.57	
comforting/discomforting	.56	
manageable/unmanageable	.52	
flowing/clogged	.53	.43
harmonious/dissonant	.51	.46
smooth/turbulent		.87
calm/agitated		.79
effortless/laborious		.63
Variance	46.5%	10.0%
Eigenvalue	6.97	1.50

was .90. There was a moderate, negative Pearson correlation ($r = -.40$) between FES and PEPS scores.

Symptom experience was measured by the Symptom Experience Scale (SES) (N. Samarel, personal communication, November 1993), a 24 item, 5-point Likert scale that measures frequency, intensity, and distress of eight common symptoms, including nausea, pain, appetite, sleep, fatigue, bowel pattern concentration, and appearance. The Cronbach's alpha coefficient for internal consistency reliability of the SES in this study was .90. There was a moderate, negative Pearson correlation ($r = -.42$) between SES and PEPS scores.

In addition, the relationship between participation and the presence of symptoms was examined in a discriminant analysis of Sample 3 (N = 208). The analysis revealed that the PEPS discriminated between persons who reported one or more health problems/symptoms and persons who reported no health problems/symptoms ($p = .018$), and correctly predicted 58% of the distribution of the cases. Higher PEPS scores were associated with lack of reported health problems/symptoms.

Furthermore, construct validity of the PEPS was examined by measuring the relationship between participation and the medical diagnosis of cancer. Analysis of variance

revealed no differences in participation between persons with a cancer history ($n = 55$) and "healthy" persons ($n = 153$), nor between persons with a history of cancer in active treatment ($n = 41$) and those who had completed treatment ($n = 14$).

Concurrent Validity

Concurrent validity was assessed for Sample 2 ($N = 125$) through the concurrent administration of the Sense of Coherence Scale (SOCS) (Antonovsky, 1987) and the PEPS. Sense of Coherence is defined as

a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structures, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement (Antonovsky, 1993, p. 725).

From a Rogerian perspective, therefore, sense of coherence might be considered a manifestation of human-environment mutual process. The SOCS is a 29 item, 7-point Likert scale that measures the belief that life is comprehensible, manageable, and meaningful. Cronbach's alpha coefficients for internal consistency reliability have been reported from .89 to .93. There was a relatively high, positive Pearson correlation ($r = .70$) between the SOC and the PEPS.

In addition, concurrent validity was assessed for Sample 2 ($N = 125$) through the concurrent administration of the Power As Knowing Participation in Change Test (PKPCT) (Barrett, 1990) and the PEPS. The PKPCT was selected because of the apparent conceptual overlap of participation with the awareness aspect of power. The PKPCT is a 7-point semantic differential instrument comprised of thirteen bipolar adjective pairs,

repeated for each of four aspects of power: awareness, choices, freedom to act intentionally, and involvement in creating change, for a total of 52 items. Cronbach's alpha coefficient for internal consistency reliability has been reported as .96 (Trangenstein, 1988), and test-retest reliability has been reported as ranging from .57 to .90 (Barrett, 1990). There was a relatively high, positive Pearson correlation ($r = .69$) between the PEPS and the PKPCT.

Concurrent validity also was assessed through the concurrent administration of the Leddy Healthiness Scale (LHS) (Leddy, 1995a) and the PEPS. Leddy (1995b) has theorized that participation and healthiness, two manifestations of field pattern relevant to health, are related. The LHS is a new, 27 item, 6-point Likert scale. The scale measures ends and enrichers (purpose) and energizers and enablers (power) which are proposed to comprise the dynamic state of healthiness. Cronbach's alpha coefficients for internal consistency reliability range from .89 to .92, and test-retest reliability (2-6 weeks) was .83. There were moderate to relatively high positive Pearson correlations between the LHS and the PEPS ($r = .60$ for Sample 2 and $r = .73$ for Sample 3).

Discussion

Examination of the range of scores in Table 1 indicates that the PEPS has the ability to measure a wide range of person-environment participation. The factor analysis revealed two components, expansiveness and ease, rather than five distinct content areas as originally conceptualized. The factor analysis indicates that the PEPS permits measurement of the rhythmical waxing and waning of the ease and expansiveness of participation. For example, at times there may be the perception of more aspects of smooth and comfortable ("easy") participation, and at other times, the perception of more aspects of energetic and ability to influence change ("expansive") participation. However, since participation is a uni-

tary phenomenon, the instrument components labeled expansiveness and ease should be considered interrelated, and probably should not be used as separate sub-scales of the instrument. It is important to emphasize that higher scores on the PEPS represent more perceived ease and expansiveness of participation, and not more or less participation per se.

The PEPS has demonstrated internal consistency reliability and test-retest reliability sufficient for a new instrument (Nunnally, 1978) (See Table 3). The test-retest reliability coefficient revealed more stability of person-environment participation than had been expected. Inasmuch as Rogers (1990, p. 8) postulates "increasing complexification" and diversity of field pattern "relative for any given individual," the possibility that the instrument is insufficiently sensitive to change must be considered. Longitudinal studies are needed to clarify the nature of individual patterns of participation.

The moderate correlations of the PEPS with measures of fatigue and symptom experience, and the ability of the instrument to discriminate between persons with/without symptoms, indicate that the PEPS might be useful in studies of field pattern relevant to health. Given the negative direction of the correlations of participation with fatigue and symptom experience, it is tempting to associate a higher PEPS score with "better" health, and a lower PEPS score with "less" health. However, this interpretation would be inconsistent with Rogers' emphasis on a non-judgmental view of manifestations of evolving pattern. A more accurate interpretation would be that when participation is easy and expansive, the person perceives fewer symptoms and less fatigue. The finding that participation discriminated between people with or without one or more health problems/symptoms, contrasted with the lack of differences between persons with or without diagnosed cancer, supports the

proposition that the presence of one or more health problem/symptom(s) may be more likely to be associated with other changes in field patterning than a disease diagnosis per se.

The findings with regard to concurrent validity support an overlap in the measurement of participation and healthiness, in the measurement of participation and sense of coherence, and in the measurement of participation and power. The magnitude of the correlations indicates that the concepts are not exactly the same (Nunnally, 1978). However, the overlap of three items, and the common semantic differential format, may have accounted for some of the shared variance between the PEPS and the PKPCT. It would be interesting to explore possible relationships between scores on the PEPS and other instruments derived from the Science of Unitary Human Beings (See Table 1).

There are implications for the application of the PEPS in nursing practice research. It is hypothesized that expansiveness and ease of participation can be facilitated through non-invasive nursing interventions which pattern the client's environmental field. It is further hypothesized that other manifestations of pattern, such as the perception of healthiness, would be associated with pattern change through human-environmental field mutual process. These hypotheses could be tested through studies using the PEPS as one empirical indicator.

Further evaluation of the PEPS is warranted. Longitudinal studies of individuals in special populations (e.g., various symptom or activity patterns), as well as diverse cultural backgrounds should be undertaken to further evaluate construct validity and establish descriptive profiles. Probability samples of sufficient size for confirmatory factor analysis would be highly desirable to continue evaluation of the component structure.

However, the PEPS has demonstrated

sufficient reliability and validity to recommend its use in clinical studies. It is hoped that the instrument can contribute to unitary conceptual, theoretical, and empirical understanding of manifestations of mutual process for the purpose of guiding nursing practice with clients.

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FOCUSING AWARENESS: THE PROCESS OF EXTRAORDINARY HEALING FROM A ROGERIAN PERSPECTIVE

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ABSTRACT

Using qualitative research methods, a four stage model was developed to describe and explain the process of extraordinary healing for three individuals. While current research in psychoneuroimmunology was helpful in understanding the physical recovery, it could not explain the entire healing process. The Rogerian perspective, particularly power as knowing participation in change and recent work on spirituality, had greater utility in explaining the process of ever increasing frequency patterning as described by the participants.

Reports of extraordinary healing appear both in the medical literature and in the popular press. In the medical literature, they are generally called "spontaneous remissions" and are not uncommon. In a search of the literature, O'Regan found approximately 3500 references to spontaneous remissions (Dreber & McNeill, 1993). From these, O'Regan and Hirshberg (1993) compiled a list of 1385 citations appearing in reputable medical journals between 1865 and 1989. Between 1950 and 1989, the number had been steadily rising and comprises 81% of the total number of citations. Of the 1385 citations, 1051 referred to cancers, and 334 referred to other types of diseases. Many of these citations refer to more than one patient. Spontaneous remissions may be more prevalent than previously thought, but may remain under-reported and unmeasured (O'Regan & Hirshberg, 1993). O'Regan and Hirshberg (1993, p. 2) define a spontaneous remission as "The disappear-

ance, complete or incomplete, of a disease or cancer without medical treatment that is considered adequate to produce the resulting disappearance of the disease symptom or tumor." According to O'Regan and Hirshberg (1993) a recent survey of individuals using alternatives in conjunction with traditional treatment "suggests that as many as 10% of them undergo 'spontaneous' remissions, though the causes of these are so far unstudied" (p. 3).

Most reports in the popular literature are anecdotal. For example, Cousins (1979, 1983) reported developing a successful self-healing program for a painful and debilitating connective tissue disease and for a severe heart attack. In both cases, the reported level of recovery far exceeded medical expectations. Melton's (1988) recovery from the devastating effects of AIDS and Bloc's (1989) recovery from a spinal fracture that should have left him paralyzed are two other examples of "miracles" where the individual embarked on a program of self-healing. Instances like these have led to speculations about a mind-body connection in healing where the power of the mind along with emotions and beliefs plays a considerable role in healing the physical body.

Psychoneuroimmunology (PNI), the

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study of the biochemistry of mind-body interactions, is a very mechanistic view but does give some clues useful in understanding how a mind-body connection might work. In what have become classic experimental studies, Laudenslanger, Ryan, Dugan, Hyson and Maier (1983) found that inescapable stress but not escapable stress depressed the immune system as measured by lymphocyte proliferation (ability to divide and grow in the face of mitogens) and cytotoxicity (ability to destroy infected cells) in rats. Similarly Sklar and Anisman (1979) found that inescapable but not escapable stress was associated with tumors that appeared earlier and grew faster in mice. Millar, Thomas, Pacheco and Rollwagon (1993) found that avoiding stress may significantly enhance lymphocyte proliferation above normal in rats.

In humans, stress, whether experimentally induced (Kiecolt-Glaser et al., 1993; Strauman, Lemieux & Coe 1993) or naturally occurring (Kiecolt-Glaser, et al., 1984; Kiecolt-Glaser, et al., 1987) has been associated with immunosuppression. Additionally, perception of control over stress, whether real or imagined, can protect against immunosuppression (Sieber et al., 1992).

Within the mechanistic view, neuropeptides are thought to be responsible for the enhancement or suppression of the immune system. In addition, these chemical modulators which swim throughout the body provide the communication network whereby any organ or system can communicate directly with any other organ or system (Pert, 1993). There is, however, a problem with considering these systems to be mechanistic and separate. The communications between them seem to be simultaneous. Neuropeptides require time to travel from one separate area to another. Therefore, Pert (1993) believes some form of undiscovered "enlivening" (p. 189) energy must account for the spontaneous nature of the communications and changes throughout the body.

The Rogerian framework provides an explanation for the apparent unity of communications within the body. Within this framework the "fundamental unit" is the energy field (Rogers, 1986, p. 4) which is open and continuous. Therefore, changes would occur within the entire field, not within one system at a time.

According to Rogers (1986, 1992), the distinguishing characteristic of the field is the pattern. Pattern is an abstraction that gives identity to the field. The pattern cannot be seen or measured. Manifestations of that pattern can be seen. Illness and emotional upset are pattern manifestations. Because symptoms are manifestations of field pattern, changes in symptoms indicate changes in field pattern. Similarly, changes observed in immune function would be a manifestation of field pattern change. From a Rogerian perspective, it would not be a change in the nature of stress from escapable to inescapable that lowered immunity, rather a change in human field pattern manifested as both the perception of inescapable stress and lowered immunity. The two happen simultaneously, as has been observed in the study of PNI.

Methodology

Requests were placed in journals for brief accounts of spontaneous remissions or of healing which could not be explained by medical treatment received. From the 37 accounts received, three participants were chosen based in part on their use of different alternative therapies. This lessened the chance that belief systems associated with one particular alternative would influence the final analysis. Participants were also chosen to maximize differences between illnesses. In addition, each participant identified one friend who was close to them at the time of the remission and who was willing to be interviewed. Interestingly, each of these three friends had accounts of their own spontaneous remissions which added to the data. Medical verification of

the unexplained nature of the recovery was obtained from copies of medical records and/or from the physicians involved. In each instance a second physician unknown to the participant confirmed that the reported recovery was not possible by medical standards.

All three participants were interviewed between four and five times for more than two hours each over a two year period to explore the process involved in their healing. Human protection standards were followed and pseudonyms were used.

Taped interviews were transcribed verbatim into logs. The constant comparative method (Glaser & Strauss, 1967) was used for data analysis. Initially each account was analyzed individually to maintain the integrity of the experience. First the process over time was delineated. Then each step or stage in the process was analyzed using Strauss and Corbin's (1990) axial coding procedures. Once the three accounts were analyzed, they were compared and a four stage model emerged. Again Strauss and Corbin's (1990) axial coding paradigm was used as constant comparisons were made between participants. Throughout the entire process negative cases, or instances that did not agree with the emerging analysis, were sought in the log material and in accounts obtained from the popular press. If found, the analysis was changed accordingly.

Lincoln and Guba's (1985) standards of trustworthiness were applied. Each participant reviewed her own account as well as the final four stage model. Comments were favorable. One participant said it was a "great job in sorting all this information and putting it in some order." In addition, an auditor familiar with the Rogerian framework conducted an audit and found "the method was clear, the decision trail could be followed, and methodological decisions were appropriate."

The Participants

At age 38 Maggie was struggling with a failing marriage and within weeks of leaving her home developed pneumonia and painful abdominal cramps. She was told she would require an immediate partial hysterectomy for uterine fibroids. She states she was given no choice by her physician, and this created further turmoil. She sought second and third opinions before she was able to find a physician who would help her minimize the risk of refusing surgery as she pursued acupuncture and Chinese herbals. After 6 weeks, she had another sonogram and was told there was no change in the fibroids. Because she "could feel—could tell something was going on" and had an "inner voice that said, 'This is working,'" she ordered the actual reports and found the fibroids had, indeed, begun to shrink. She continued the acupuncture and herbs. Her medical record from 2 years later confirms that the fibroids are gone.

In her early 20's, Milagros suffered several crippling back injuries resulting in two laminectomies. She was in constant pain and unable to hold her own children when she saw a psychic in 1975. She was told to heal herself, prayed that night, and reports she awoke pain free the next morning. (Unfortunately this incident was too old to verify.) In 1991 she was visiting her terminally ill father which, she felt, reawakened old childhood patterns of rejection by her family. At the same time, the back pain recurred, eventually becoming severe enough to paralyze her. Her MRI from that period confirms extensive stenosis and scarring which would normally be associated with pain and extensive loss of function. She was taken to an emergency room where she reports she suffered further injury at the hands of "uncaring" physicians. Because medicine had no treatments to offer her, she turned back to the many alternatives she had been using including diet, chiropractics, and a form of kinesiology called "brain mapping." By 1993 she had

regained function and was pain free.

Rebecca was diagnosed with Hashimoto's hypothyroid in 1989. Despite a clear family history, Rebecca believed the condition was associated not with genetics, but with feelings of abandonment and unrecognized anger as all her friends had recently moved away. Because her symptoms were so severe and the risks of forgoing medical treatment so great, she elected to go on medication for a year while she pursued homeopathy. At the end of the year, she convinced her physician to "partner" with her by reducing the amount of medication slowly over three months and taking frequent blood tests. She was able to get herself off all medication, and her thyroid function remained normal four years later.

Findings: The Four Stage Model

From the process as described by these three participants, a four stage model was derived to help explain the physical recovery. Central to the process as described by the participants is the concept of *focusing awareness*, of becoming increasingly aware and using that awareness to make decisions and to participate more fully in the healing process.

As with any staged model, it should not be implied that the process was an orderly progression from one stage to the next. Indeed, the participants did evolve through the stages described here, but that evolution involved cycling between stages throughout the entire process.

Stage I: Rejecting the Medical Approach

At this point in the process, the participants' awareness was primarily focused on their illness symptoms, whether fever, pain, paralysis, excessive tiredness, or memory loss. These symptoms engendered fear. Physicians engendered more fear by either reporting there was no medical course of action available to help them, or by proposing an approach which felt invasive, and, in the participants' view, did not get at the root of the problem. The participants felt

trapped because they were given no choice and were told the medical solution was the only possible approach. Maggie reported her interactions with medicine felt "closed," like "there was no room for anything else."

In addition, all three participants reported that their lives felt "blocked." Maggie was struggling with a failing marriage and an unrewarding career. She expressed it as "not getting the support I needed" to participate fully in all areas of her life. While visiting her terminally ill father, Milagros reported old feelings of "rejection" reawakening "blocks" originating in childhood. Rebecca reported unacknowledged feelings of "abandonment" as all her close friends moved away during the year before her symptoms started.

Anger was the strategy whereby the participants were able to break free of the fear and find the energy to reject the medical treatment proposed. Maggie said,

There is a time in dealing with my anger when I let it escalate and I built a foundation to dig my heels in. If it was just fear, it would be so petrifying and disabling. Anger is also, but there is more energy with it.

Milagros echoed this thought, "Get me angry! I need it to prompt me into action when I am afraid." Rebecca agreed: "That [anger] is what caused my rebellion, more than anything. That was like lighting a fire under me. You could not have gotten me to work faster, to go against what I had been told. "

The anger, as displayed by these participants, was assertive, defiant and focused outward, not generalized or focused inward. It gave them the impetus to action—the impetus to become involved in their own healing and their own lives.

Stage II: Deciding to Find an Alternative

In contrast to the medical approach which only addressed the physical symptoms, the participants believed alternatives

promised to address the whole person and get at the emotional root of the illness. Perhaps more importantly, alternatives gave them choices not only in how they viewed their illness, but in how they participated in the healing.

All three participants had exposure to alternatives prior to the illness. Maggie had been taking and teaching workshops on "new age" philosophies. Milagros had used alternative therapies for many years in order to maintain the level of functioning gained after the first healing. Rebecca, too, had attended workshops on meditation, as well as watched a good friend wean her son off asthma medications primarily by changing his diet. This exposure to alternatives gave them a different awareness about illness and healing. They each believed they would be able to "cure" the problem and prevent its return.

They did not limit their awareness to alternatives, however. They considered the seriousness of the medical condition and actively sought ways to decrease the risks while choosing to pursue alternatives. Maggie agreed to obtain another sonogram 6 weeks after beginning acupuncture to verify that the fibroids were, indeed, shrinking. Milagros returned to her chiropractor who monitored her condition. She also sought the advice of a neurologist to interpret the MRI. Rebecca gradually reduced her thyroid medication as her physician monitored her blood levels to be sure her natural thyroid function was working normally.

As they focused their awareness on both the problem and the options or choices open to them, they noticed that more subtle body sensations changed depending on what they were considering. When considering the medical approach, they felt closed and trapped, but when considering the alternative they felt open and free. Focusing awareness on their bodies' physical and emotional reactions in this way opened a whole new world, and they began to explore

new ways of making decisions—new ways of choosing how to participate in their lives. By focusing awareness on the subtle clues of the body, they would come to believe that one course of action or another was better. This belief gave them the freedom to make the choice and to participate.

Stage III: Choosing the Right Therapy

Given all the possible therapies to try, it was somewhat surprising that both Maggie and Rebecca found the "correct" alternative as quickly as they did. It could be coincidence, that any alternative would have worked, or that information was available from outside their bodies. Rebecca said the theory of homeopathy "just resonated with me, the whole theory."

On a gut level, on a feeling level, having absolutely no rational explanation whatsoever, it was sort of like going, "Ahhhhh." (Here it is almost like a sigh of relief combined with wonderment.) Almost an experience from someplace inside of me, "I know this is right," and I know it from some other time. It comes from my intuitive level. From the spiritual perspective, if we are all one mind and one part of one great consciousness, then we, in fact, have the ability to tap into that universal pool of knowledge at any time.

Rebecca reports her only contact with homeopathy had been years before, when she had a cat treated successfully by homeopathy. She had not tried it herself and, therefore, had observed but not personally experienced homeopathic treatments.

Maggie reported a similar experience during fever states when she was trying to decide what she should do.

This is going to sound strange, but there was an altered consciousness that happened. And there was the pain. The pain got terrible. I got really burning up. I sensed the

altered consciousness. I really can't explain, but I somehow got support, some kind of spiritual support.

Milagros spoke about a state in which you "just know" something is true. "Just knowing" is "a sense of familiarity on a feeling level, and on a conceptual level." For Milagros this sense of "just knowing" came from a deep inner level. She said,

So to me it is really that this is the submerged knowledge and information that is surfacing. As it surfaces it is new to the conscious mind, only! But the rest of me is going, "It is about time."

Fully developed focused awareness means awareness on all levels and was the process whereby the participants chose their alternative therapies. Fully developed focused awareness means awareness of the physical, of symptoms as obvious as pain or as subtle as "gut reactions." It means awareness of the emotional and that fear or "anger [are] not to be discounted" as Maggie said. It means harmony on the conceptual level. Does the information make sense conceptually or intellectually? When all these awarenesses are focused together and one choice "feels right" then the participants felt free to act intentionally because they trusted their choice.

Stage IV: Active and Involved Participation

For all three participants, healing was not something just considered on visits to alternative practitioners or just at designated periods during the day. It became a lifestyle. What one ate, and what one thought about eating, were part of the healing process. Milagros turned to macrobiotics to further cleanse the harmful toxins she believed contributed to the pain. Maggie discovered that her pain returned after eating lunch, but not after breakfast, which consisted entirely of fruits. Her friend suggested maybe her body only wanted fruits for the moment, and she went on a week long fruit diet. She reports the pain

never returned.

In addition, how one interacted with others, and how one interacted with oneself, were all considered as lessons in healing as well as methods to heal oneself. Maggie reported she stopped looking to others for support and began relying more on herself. She said, "I was treating myself differently. I started listening to myself more." She termed this process, "standing in my own power" and said, "The biggest thing I learned was to pay attention to myself." Milagros reported her physical recovery started when she acknowledged her own ability to heal herself and worked toward that end.

As part of the participatory process, anything considered to be harmful to the healing was eliminated, including relationships and jobs. Anything helpful was pursued, including knowledge, supportive relationships and less stressful lifestyles. Maggie first stopped communicating with her unsupportive husband. Eventually she would divorce him. Instead she turned to a supportive friend who believed that Maggie could heal herself. While Milagros's husband was in agreement with her decision to pursue alternatives, his emotional resources were limited as he was also involved with his ailing father. Both he and Milagros report he was not a very good caregiver. She says he would often just turn his back on her pain and "that became a very stress producing situation." Milagros, too, turned to friends better able to meet her needs. Eventually, however, she would teach her husband to give the support she needed. Additionally, both Rebecca and Maggie left jobs which they felt did not support them as people in order to pursue healing full time.

Situations and events were examined as possible lessons in healing which was considered a 24 hour a day, 7 day a week participatory process. Maggie returned to school to study Human and Organizational Development:

I would study and cry. I would see things I did were in direct opposition to what I truly wanted. I wanted a more humanistic workplace, but I saw how I contributed to it not being humanistic.

Milagros, who worked full time as a psychic, examined what she was telling others in relationship to her own healing.

For the three participants in this study greater awareness of the spiritual realm was also a part of the healing process. As they actively participated in the process, they also found greater meaning and purpose to their lives. Greater meaning was often experienced as "connecting" with something beyond, or feeling support of a spiritual nature.

Milagros probably had the most experience with "connecting" to a spiritual source. Phrases like "generated by the universe," and "feel a connection with the whole universe," describe the experience of being aware of the spiritual. She said, "When I am aware of myself as more of a soul or an energy, I have a lot more energy and *power* and I can direct the healing a lot better."

For Maggie, "connecting" meant becoming aware of spiritual help, of help from somewhere outside herself. She says, "I somehow got some sort of spiritual support." She spoke about "spiritual knowledge that we all receive but don't often use." Spiritual knowledge is:

The quietest part of us. It is like nature. It is like walking in the woods, and standing by a tree and listening to the tree. It is not that I hear anything. It is more I feel things.

Rebecca considered her spiritual journey at least as important as her physical healing. For her, spirituality manifested as "the ability to tap into that universal pool of knowledge at any time," and was experienced as "quiet in the Temple." "This is where you are closest to God. This is where you are the closest to what you really are

and where you came from."

For all three, focused listening was the clearest and most accurate in this spiritual realm. Rebecca explained that in this spiritual realm, "My intuitive voice is extremely clear. It is so quiet that what I need to hear, I hear all the time." For Milagros "there is a knowing" in this spiritual realm where "it all felt familiar." Maggie termed focused listening "mulling" and said, "Somehow this mulling comes up with other things, like other ways to see things." This, she said, happens "in the quietest part of us" which is "very centered and balanced."

Awareness and focusing that awareness on the spiritual were the final steps in a process of increasing awareness coupled with increasing participation in the process. As each participant spoke about the process of healing evolving through the four stages, they described a process of increasingly focused awareness. They described a process whereby the symptoms taught them to focus their awareness. Having become increasingly aware of the physical body—the symptoms, they would focus awareness on the emotional, then the spiritual. At the same time, the nature of their participation changed, and they became more actively involved in their healing and in their lives. This increasing involvement in the process was considered the "true healing" by the participants.

Discussion: The Rogerian Perspective

While the more mechanistic view, PNI, could provide some explanations for the recoveries, many questions were left unanswered. It was discovered that the Rogerian framework had great explanatory power when applied to what these three extraordinary women had done. From the Rogerian perspective, the process could be conceptualized as an evolutionary one toward higher frequency patterning.

Barrett's (1983) concept of power as "knowing participation in change" provided the most accurate description of what these

three women had done. She says, "Knowing participation is awareness of what one is choosing to do, feeling free to do it, and doing it intentionally" (p. 104). Greater power is higher frequency patterning (Barrett, 1983).

During the first stage of the process as depicted by this model, the participants reported that their energy was "blocked" and "closed." From a Rogerian perspective, energy fields and flow would not be blocked or closed. The experience of lower frequency patterning might, however, manifest as the feeling of "blocked" and "closed" as reported by these participants. Patterning which manifested as feeling blocked was evident in the women's descriptions of their life situations at the time they became ill. They felt trapped by circumstances and, at least at that moment, felt they could not participate in changing them. They also felt trapped by the physician's response to their problems. Maggie commented that when she spoke with her diagnosing physician, "It felt like there was no room for anything else."

From a mechanistic point of view, feeling trapped (inescapable stress) leads to immunosuppression and decreased ability to heal. From a Rogerian perspective, the depressed immune system and the feeling of "trapped" would be manifestations of a field pattern. It is not that one "causes" the other. Rather, they are both manifestations associated with a particular energy pattern.

At this point, perceived awareness seems to have been limited. Initially, the participants reported focusing awareness on the symptoms of both the illness and the emotional problems they were facing. They were aware that they felt trapped but were not aware of choices which might be available to them. They were not participating fully. It was the diagnosis and proposed medical course that provided the impetus to participate more fully and more powerfully in their own lives.

While considering the medical recommendations and their life circumstances felt like being "trapped," considering an alternative therapy felt more "open." The participants report that the alternative promised to address not only the illness, but the emotional problems they perceived as part of the medical condition. They now had a way to escape the stresses of the illness and their lives. From a mechanistic point of view, feeling that stress was now escapable would have enhanced immune function.

From a Rogerian perspective, however, both enhanced immunity and the feeling of openness may be pattern manifestations associated with higher frequency patterning. Certainly, descriptions of their lives during this second stage in the process suggest that higher frequency patterning may have been present. Barrett (1983) suggests that greater power, greater participation in change, is a higher frequency pattern. At this point, the participants reported increasing awareness, choices and involvement in change, all associated in Barrett's model with greater power.

During this second stage, the participants' awareness expanded to note that more pleasant body sensations and emotions were associated with considering alternatives. They focused their awareness on these pleasant feelings. Phrases like "just felt right" and "gut reactions" were used to describe this newly discovered ability of the body to communicate through feelings and emotions. Having become aware of the sensations and the messages they felt were contained in them, the participants report they realized they had choices. The first choice was to pursue the alternative. Another choice was to eliminate jobs or relationships that were associated with feelings of "closed" and trapped." They began to actively participate by pursuing their own choices.

With the third stage, choosing the right therapy, the experience as presented

by the participants became more paranormal in nature. The theory of the emergence of paranormal phenomena (Rogers, 1980) "suggests that experiences normally labeled paranormal are manifestations of the changing diversity and innovation of field patterning (Malinski, 1993, p. 51)" and are higher frequency patterns.

During the third stage all three reported having access to knowledge which they felt could not have come from within themselves. Maggie reports "spiritual guidance" in her decisions. Milagros reports knowing things "my petty mind" could not. Rebecca reports receiving knowledge that came from "some other time." Indeed, Maggie had no personal experience with acupuncture at the time she decided to pursue it. Milagros reported an ongoing process of accepting one form of alternative while rejecting another based on information which would not have been available from personal experience. Similarly, Rebecca had not personally experienced homeopathy, yet was sure it would work.

PNI can theoretically explain how one might intuitively "know" something based on personal experience. Neuropeptides swimming about in the body transmit information from one part of the body to another. It is believed this information is carried between all systems in the body, including the subconscious mind (Pert, 1993). Therefore, the subconscious could have knowledge of disease states before they are diagnosed. The subconscious mind could also have knowledge about whether a particular treatment was working. This might explain why Maggie "just knew" the acupuncture "was working."

Neuropeptides, however, cannot explain the perception of "knowledge" not already contained within the body, not known through previous experiences. The participants suggested that their choice of alternatives was, in part, based on information they had not yet experienced. Within the Rogerian

view, they would not have had to experience the alternative on a physical level to know whether it was right for them. The wave pattern associated with the particular alternative would have been available to them because the human field and environmental field are one open field. Simply by becoming aware, they would have access to this information in the environmental field. Increasingly focusing awareness on the environmental field was a part of the healing process reported by the participants.

During the fourth stage, active and involved participation, higher frequency patterns became more predominant in all aspects of the participants' life. All three spoke about discovering choices in how they dealt with the "trapped" feelings they were experiencing in their lives, and about connecting with the spiritual. For them, becoming aware of the spiritual was part of the true healing.

For Maggie, awareness of a field pattern that manifested as anger gave her choices in how she participated in the world. She chose to participate by relying on herself and by manifesting support within herself, rather than expecting support to be in the environment. She participated in changing her field pattern by finding her true self, "standing in [her] own power," and by living her "vision" of how she wanted to be in the world.

Similarly, Rebecca's growing awareness of a field pattern manifesting as "fear of disappearing if I am not acknowledged" led her to choose to acknowledge herself by discovering who she was. This involved patterning her field with higher frequency patterns by becoming aware her own core self which she experienced as "quiet in the Temple."

Milagros had extensive experience with healing prior to her most recent experience. For her, it was a matter of reawakening by focusing her awareness back to the true nature of her being.

Greater power, as experienced by these participants, is a manifestation of a higher frequency pattern and should, according to Rogers, be associated with other higher frequency patterns. Awareness of spirituality, within the Rogerian framework, has also been considered a higher frequency pattern (Malinski, 1991). A correlation between greater spirituality and greater power has been demonstrated (Smith, 1992). Indeed, the participants reported that both their awareness of the spiritual and their active participation in change increased as the process evolved.

From a Rogerian perspective, the growing awareness of the spiritual nature of their being would be a growing awareness of Integrality, of the continuous mutual process of human and environmental fields (Malinski, 1994). The participants described the process as both an opening to and as a growing awareness of Spirit, but felt that Spirit had been present throughout their entire lives. Awareness, then, may be the key. For these three the disease was the impetus to becoming more observant as their awareness was first focused on unmistakable symptoms which frightened them. Having become consciously aware of physical symptoms, they were able to shift that focused awareness to emotional and then, finally to spiritual realms, each new awakening in conscious or focused awareness adding onto the last. To this they also brought an intellectual awareness as they focused on and sorted out the meaning. This process, focused awareness, felt like freedom, and gave them choices so that they became more actively involved in their own lives. Their accounts of healing described the process whereby illness can become an empowering experience.

According to the Rogerian framework, higher frequency patterning increases the likelihood that the change—the physical healing—would be an innovative pattern change (Malinski, 1993), and one not seen

on a regular basis. This suggests the physical healing was not the result of the right variables coming together in just the right amounts to bring about electrochemical events which produced physical recovery. Rather, the recovery may have been a manifestation of ever increasing frequency wave patterns which the participants achieved by patterning the field with ever increasing power, with ever increasing participation in the process, with ever increasing spiritual awareness. As such, it would be an innovative and diverse pattern but one toward which humanity may be evolving.

Conclusion

While research in PNI was helpful in the understanding how a change in the perception of stress may have been involved in the physical recovery, it could not explain the entirety of the healing experience. The Rogerian framework not only provided a fuller explanation, it validated the more paranormal experiences of these three extraordinary women and helped explain how they perceived help of a spiritual nature from their environmental field.

The process involved can be conceptualized as one of ever increasing frequency patterning. Having become aware of frightening physical symptoms, it was an easy transition to awareness of the emotional then of the spiritual. Each step added to the one prior and each step demonstrated a higher frequency pattern. Rather than looking at the physical recovery as a biochemical event resulting from a change in the perception of stress, it would be more helpful to view the change in the perception of stress and the biochemical manifestations associated with that change as higher frequency patterning. In this way, greater power, greater spirituality and healing become manifestations of the one continuous mutual process of the human/environmental field.

Final Comment

The three participants in this study have helped illuminate an experience not

considered possible by many traditional health care professionals. Their willingness to spend the time necessary to help with the study, and their courage in revealing aspects of themselves which did not always make them feel comfortable, has provided this study with a wealth of information and insight which would not have been possible using a more quantitative approach. It is hoped that this information will add to the growing body of knowledge about healing in general and about extraordinary healing in particular.

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The Science of Unitary Human Beings vs. Closed Parts

An Analysis of Dying

Saturday, 5AM. She weakly lifts her 88-year-old hand to her eyes and then drops it back to the bed. Her faded blue eyes open, unfocused at first, then slowly, gradually she turns her gaze to the early rays of sun just starting to show through the hospital window. I reach for her hand and gently whisper "Good morning grandma. It's Elise. I'm here with you." She blinks, lowers her head and her eyes fix on mine. "Elise?" she says softly. Then, in a strong and hopeful voice, "Am I dead yet?" Startled I quickly reply, "No grandma!" "Oh Shit!" She exclaims, wrinkling her forehead with disgust, and then quickly falls back to sleep.

Dying. When is a comprehensive, clearly understood nursing philosophy more needed than when caring for dying patients? Helping patients to find meaning within this process is an important focus of my professional life. Describing the awesome process of physical dying with measurements such as pO₂, number of cc's of urine output, and pulse rate limits assessment to a listing of parts and does not support a comprehensive view. Rogers' Science of Unitary Human Beings helps explain the dying process as the patterning of human energy fields with their environmental energy fields and gives one a more complete view of the process.

I learned the biological/physical/social/psychological aspects (parts) of the dying

process in nursing school. An impressive lengthy array of facts were used to explain the dying process as a "chain reaction" of multi-system failures within the physical body which inevitably leads to death. Further, I was to be reassured by this explanation that death was a logical, completely biological, explainable and understandable event.

During my 13 years specializing in Oncology and HIV/AIDS, I have supported and held many patients during their last physical moments. The logical fact-ridden explanation of the dying process learned in school does not adequately describe what I have experienced. Physical, biological, social and psychological aspects of the phenomenon of dying, evaluated separately, do not explain some of the most amazing and inspiring moments I have shared with dying patients and more recently with my own grandmother.

The Science of Unitary Human Beings describes human beings as different from a listing of "parts." Human beings are human energy fields that are fully and continuously integral with their environmental fields. Humans cannot be studied by analyzing their separate parts or the sum of their parts (Rogers, 1992). Human beings are integral with each other.

Saturday, 4pm., change of shift, system assessment time. "She is still alert, her urine output is better and her heart rate is stabilized. I don't understand why she keeps saying she's dying. Maybe the doctor should change her medication?" said grandma's nurse.

Wholeness as described by Rogers(1992) is the unifying concept of fields, and energy is the dynamic nature of the fields which are in continuous motion and are infinite. Pattern is defined as "the distinguishing characteristic of an open energy field perceived as a single wave" (Rogers, 1992, p.29). Patterns are not directly observable but manifestations of the pattern are specific and observable. Grandma's nurse

just responded to specific manifestations of grandma's pattern which she evaluated as separate entities and "proof" that grandma was "getting better." She was confused by grandma's insistence that she was dying in the face of her improved statistics/parts. By analyzing only the parts of grandma she was able to measure, her nurse was unable to perceive other diverse manifestations emerging from the mutual process of grandma's human-environmental field.

*Monday, 2AM. "It's Monday already!
Seems like just minutes ago it was Friday
and you were coming in from New York.
Time is going so fast!"*

Pandimensionality is another key concept of Rogers' Science of Unitary Human Beings. It is used to describe the infinite domain, not limited by spacetime, in which we live. It is "a way of perceiving reality" (Rogers, 1992, p.31), "without spatial or temporal attributes" (p.29). Grandma's sense of time "going so fast!" (a manifestation of experiencing a higher frequency) also demonstrates increasingly diverse and changing patterning. Continuous change from lower to higher frequency environmental and human field patterning (resonancy), continuous, new, unpredictable, and diverse human and field patterning (helicy), and the continuous "mutual human field and environmental field process" (integrality), are the triad of principles that define Rogers' concept of homeodynamics (Rogers, 1992).

*Sunday, 4AM. "There you go baby-doll!
All better now!" cooed grandma's nurse
after helping me turn her. "I'll be back
later, you be good!" she said while patting
grandma on the head before leaving the
room. "I'll baby-doll you!" Grandma
exclaimed. "Doesn't she hear herself Elise?
Does she know I'm a nurse too?," She
said in angry frustration.*

Contrary to many nursing theories, the Science of Unitary Human Beings sees aging of human energy fields not as a "running down," but rather as field patterns that become more diverse. The process in which the physical body ages and then dies

is described as the changing of one manifestation of the human energy field to another, "moving beyond the visible range of wave frequencies of the human field pattern that can be perceived by the human eye" (Phillips, 1990, p. 20).

*Monday 11AM: "Are you afraid grandma?"
I asked. She smiled at me and said, "Elise
you know I dreamed of Leonard, Lyle, and
Fern (her husband and my other two grand-
parents respectively, all dead) last night.
They were smiling at me. I'm only afraid that
someone will do somethng stupid and drag
this whole dying thing out. I just want to go
on!"*

Many nurse theorists emphasize a causal relationship between the environment and fragmented patients' parts. They "portray a problem-oriented view of health and its attainment" (Phillips, 1990, p. 16) that is based on biologic, physical, sociologic and psychologic aspects of the patient. Therefore, these nurse theorists' primary purpose is to "cure disease" (Phillips, 1995). The Science of Unitary Human Beings takes a very different view that focuses on health defined as the general well-being and self-actualization of potentials experienced by human beings. Helping people identify and realize their own potentials is nursing's highest goal (Phillips, 1990).

Grandma was ready for changes in the manifestation of her field pattern. She shared with me her dream, a paranormal experience in which she was able to be with my other grandparents no longer physically alive. Her exclamation of wanting to "move on" was a moving affirmation that she was indeed ready to manifest her energy field in a non-physical way. She was clearly participating knowingly in this process of change. That she felt comfortable and wanted me to participate with her in her becoming was an honor and a gift from her I will cherish and never forget.

*Olive Carper, RN, 88, mother of one,
grandmother to four, died on Tuesday
2/21/95 at 4 AM. I was able to spend*

3 "night shifts" with her and the excerpts above are true (even baby-doll!!!). My sister Kate was with her when she died and tells us that grandma's last words were that she wanted the O₂ cannula taken off so she could have a cigarette!!

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CONTROVERSIES COLUMN

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Must Acausality Imply Unpredictability?

The struggle to understand Rogers' view of nursing as a science has not been easy, particularly when the language has been paradoxical at times. As we know, Rogers herself found fault with certain terminology and frequently deleted or added terms to strengthen her work and make it more easily appreciable.

A great many of the semantic difficulties encountered by Rogers appear to be linked with the idea of "acausality" (note this term cannot be found in the Webster's English dictionary). When the nature of change is discussed as "continuous, relative, and innovative" (Rogers, 1992, p. 31), underlying this nature of change is the premise of acausality. Rogers (1992) noted that "in a universe of open systems, causality is not an option" (p. 30). The conclusion drawn is essentially that if all is integral, causality is invalid and change is continuously innovative and creative (Rogers, 1992).

The idea of acausality would be so much clearer if one could discount all of the coincidental things that seem to occur in a relative, ordered sequence. This is where causality becomes much easier to accept than its counterpart. New theories in physics such as the theory of relativity and quantum theory have made acausality more acceptable, although in the sciences concerned with human beings, there is still much confusion.

Many things in life seem to be dependent upon cause and effect sequences, as much in nature also appears to have the

same sequential schemata. Rogers (1992) stated "association does not mean causality" (p. 30). She goes on to discuss change as "not only is field pattern diversity relative for any given individual, but there is also a marked increase in diversity between individuals" (Rogers, 1992, p. 31). It is accepted that every human being is unique; however, how can we discount the many similarities manifested in human life forms?

The change in Rogerian terminology (1992, p. 32) deleting the term probability and adding the term unpredictability may not adequately strengthen the consistency and support the nature of change in the principles of homeodynamics. One cannot disclaim an orderliness/pattern in life processes which often seem predictable. This does not mean that these processes need to be defined in terms of causal relations. There is still a simultaneous mutual process going on with the human and environmental energy fields.

The *Oxford English Dictionary* (Murray, Bradley, Craigie & Onions, 1933) quotes Grindon: "Nature has no independent activity, no causality of its own" (p. 41). In the sense that nature has no independent activity, we can correctly deny the existence of causality. Nothing exists in and of itself; everything is integral. However, nature is defined as the inherent or basic constitution of a person or thing. This implies an orderliness to all things. If there is an energy flow, a continual mutual process with pattern, or some form which can be ascribed to this energy flow, can we deny that it is goal directed? Aren't the energy patterns and the accompanying manifestations reflective of a large web of intricate wholeness? And if this is so, doesn't this web indicate an extraordinary degree of orderliness?

Recently, Carboni (1995) derived a theory of enfolding health-as-wholeness-and-harmony from the Science of Unitary

Human Beings. Although Carboni (1995) describes evolutionary change as "a dynamic, non-linear, and acausal process" (p. 71) she specifically links her theory with Bohm's (1980) worldview. Note that Bohm (1980) speaks of two kinds of "orders"; the implicate or enfolded order denotes an undivided wholeness, in which a total order is contained within the whole universe, and the explicate or unfolded order (Bohm, 1980), which is simply the manifestations that we commonly see in everyday living. The explicate order consists of what appear to be linear, causal and separate events, while the implicate order consists of a dynamic, flowing movement, that is not directly observable and yet is orderly in its wholeness. I maintain that implicit in this "enfolding" order is an underlying purposiveness.

Carboni (1995) defines Rogerian nursing practice as "the nurse and client knowingly participating in evolutionary patterning of the human and environmental fields for the purpose of enfolding health-as-wholeness-and-harmony" (p. 76). The word purpose as used here, seems to me, to identify a direction for this evolutionary patterning and again leads to the idea of a goal. If one moves in a certain direction for the attainment of a goal, can it not be said that the human-environmental patterning and manifestations are potentially predictive?

Predictability should not be confused with purposiveness, nor does it necessarily imply causal relationships. Some things can be predicted, but that should not lead one to believe there is any causal relationship. Sarter (1989) noted that "Rogers is clearly describing directional and irreversible change in the principles of nursing science, specifically in the principles of helicy and resonancy" (p. 77). Certainly it can be said that there are some patterns which are intentional (purposive).

Phillips (1994), in his discussion of the

open ended nature of Rogers' conceptual framework, notes the element of linearity that still accompanies the principle of resonancy. The principle of resonancy is definitely indicating directional change, while the principle of helicy is defining this change as unpredictable. In order for acausality to hold true, is it necessary to identify all change as unpredictable? Can we ever completely eradicate probabilistic outcomes when describing human life processes?

The patterns and accompanying manifestations inherent in human life arise in mutual process. One cannot deny the integrality of human-environment process and yet isn't there a strange purposiveness to this process? This makes acausality even more difficult to envision given the nature of existence is such that there is a constant unfolding, or becoming, which may be partly construed as orderly, even as evidenced by newer scientific findings such as chaos theory.

It would simplify things somewhat if we stopped linking causality with teleology. It has been noted that, "Teleology has been interpreted in the past to imply purpose, and the vague concept of a 'final cause' has often been added" (Rosenblueth, Wiener, & Bigelow, 1966, p. 15).

Rosenblueth, Wiener, & Bigelow (1966) go on to state:

It may be pointed out, however, that purposefulness, as defined here, is quite independent of causality, initial or final. Teleology has been discredited chiefly because it was defined to imply a cause subsequent in time to a given effect. When this aspect of teleology was dismissed, however, the associated recognition of the importance of purpose was also unfortunately discarded. (p. 16)

It seems as though we may also have erroneously discarded this extremely impor-

tant idea while attempting to disclaim causality. In fact, the purpose in life and non-life is integral with human-environment process. Humans design and build machines and in so doing, we give them purpose. For almost everything evolving in mutual process, there is an underlying goal, whether or not we recognize it as such.

Human-environmental mutual process is all inclusive. All living and nonliving entities are a part of this process. A concrete simplification of these ideas came to mind when delving into the topic of acausality. Doors are created by human beings; a door arises from human-environmental mutual process. The door has a purpose and the person creating the door has some goal/reason for building the door. In designing the door, the builder is able to envision how the door will open and close. The final product is predictable in the sense that it has a purpose or an ultimate goal.

Now there are those who would say that one cannot completely maintain that cause and effect relationships do not exist. If that were the case, turning the doorknob and pulling or pushing on the door might not ever cause the door to open, or then again, maybe it would. We expect the door to open most of the time, if not all of the time, when we manipulate it in this manner. Advocates of causality maintain that the cause and effect relationship is there, for if it were not, no one could ever predict the outcome of turning the knob and pulling the door.

What if, however, one would discount this as an example of cause and effect, literally replacing these terms with the idea of mutual process? In the mutual process of turning the doorknob and pulling on the door, the door is still expected to open. What is labelled by most as cause and effect relationships become known through lived experience. Rogerian scientists and others who espouse acausality can't deny that there is a fairly predictable outcome to this scenario.

What can be denied is that there is a cause or effect; rather it is said that there is a mutual process occurring. The replacement of cause and effect with the notion of mutual process can be equated with Hume's thesis of constant conjunction (Edwards, 1967, p. 58). Hume (Edwards, 1967) maintained that causes and effects are merely changes that we find constantly conjoined, and he strongly denied that there was any necessary connection between any cause and its effect.

Hume (Flew, 1962) also noted that only through experience does one come to expect what follows a particular event. Hume stated, "experience alone teaches us how one event constantly follows another, without instructing us in the secret connection which binds them together and renders them inseparable" (Flew, 1962, p. 81). But the expectation of certain occurrences does not prove any tie exists between them, nor does it allow us to predict that a certain outcome will or will not occur.

Going back to the example of the door opening, although we expect the door to open, given previous experiences with doors, the possibility exists that the door may in fact never open, despite what one does. There is no way to disprove that this is not so; "no one can ever infer any effect simply from a description of a cause" (Edwards, 1967, p. 59). In the sense that the combination of turning the doorknob and pushing on the door usually yields an expected outcome, it can be said that the nature of the outcome is probabilistic. We can repudiate this as causal and say that in fact, it is through mutual process that the outcome (the door opening) occurs.

Recall that probabilism is based on the premise that certainty is impossible. The purpose underlying our actions cannot be renounced, nor can we ignore that there is a probabilistic outcome. In the lived experience of opening a door, we learn to be able to reasonably expect that in the future, a

door can be opened in the same or similar manner. Yet the ultimate outcome of the door opening is not readily discernible; we do not know if the door will open, and if it does, we do not know what the outcome of its opening will be.

There needs to be some reconciliation of the ideas inherent in change, process and human-environment integrality with the teleological implication of purposiveness in human life. I profess that the term "acausal" should not imply complete unpredictability in all aspects of human-environmental process. To insist that everything in human-environmental process is unpredictable actually denies the unique purposiveness of human life. Such purposiveness gives credence to the idea of mutual process, where humans are inseparable from the rest of the world and each other. It is an area for Rogerian scholars to explore and make more succinctly understandable for the would-be Rogerian scholars of the future.

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IMAGINATION COLUMN

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This column projects a celebration taking place on the 100th anniversary of the birth of Martha E. Rogers, as nursing expands its "horizons." There is now an organization that makes health care services more accessible to the community:

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A New World Vision Operationalized

OPEN SYSTEMS INTERNET NEWS FLASH
May 13, 2014

The May 12, 2014 dedication and activation of the Martha E. Rogers Wholeness Center of Nursing was a cause for celebration. This Center has operationalized Dr. Rogers' challenge to embrace a new worldview for nursing. As detailed by Phillips (1991), Rogers' "broad generalizations of the Science of Unitary Human Being enable nurses to peer into the wholeness of the universe and to be creative and imaginative in their participation in the emerging science of wholeness (p. ix). Her view of nursing "pioneered a radical shift in the thinking within the profession" (Lutjens, 1991, p. xi).

Following the dedication ceremony, we took this rare opportunity to meet with Martha E. Rogers, RN;ScD;FAAN, and ask her to share her thoughts on the culmination of one of her dreams.

Q: Dr. Rogers, please describe for our readers what the Martha E. Rogers Wholeness Center of Nursing is all about.

A: Well Ms. Cohen, nursing practice at

the Center is based on the four Postulates of the Science of Unitary Human Being, as well as the Principles of Homeodynamics; in fact my Science of Unitary Human Beings. The profession of nursing is a science and an art. What this translates to for our clients is a recognition, a commitment to care for the whole person. I need to point out at this juncture that the Center is not solely confined to the campus at 4 Postulates Circle. Our services include outreach activities such as the Community Nurse Hovercraft which covers the East Coast, and the NURSA Shuttle which makes monthly dockings with four interplanetary substations. Both are for the purpose of providing health services and health promotion in the clients' actual community. Ms. Cohen, you'll note that I refer to the individuals we care for as "clients." It must be clearly understood that one need not be "sick" to access our services. As our name indicates, we are about the business of wholeness, and that can include all the individuals to encompass family/significant other or whatever they define as their community

Q: Dr. Rogers, what are the 4 Postulates and the Principles of Homeodynamics which seem to be at the "core" of the Center?

A: The Postulates are indeed vital to the science. They include energy field, openness, pattern and pandimensionality. Energy fields are the fundamental unit of unitary human beings. There is a human energy field and an environmental energy field. The term "human" energy field is not to be misconstrued as only an individual. It can also be a family or a group. There are no lines of demarcation between these fields. They are continuously in motion and infinite. This is accomplished through openness. As the human energy field and the environmental

energy field are not separate or closed systems, they flow through one another and are inseparable. This is the Universe. Pattern, an abstraction, is perceived as a single wave and distinguishes the human energy field from its environmental energy field. Only the manifestations of a pattern can be viewed, and this is unique and continually evolving. Pandimensionality is another approach to viewing reality. It is the ability to be aware of experiences that transcend the confines of the accepted three-dimensional world we live in. The principles, Resonancy, Helicy and Integrality, deal with the change process of pattern, which is ongoing. Each principle differs in that resonancy is continuously changing frequency of wave patterns, in energy fields, from lower to higher. Helicy, on the other hand, is the increasing diversity of the energy field pattern, which is continuous but also unpredictable. Lastly, integrality deals with the mutual and continuous process of the energy fields.

Q: Dr. Rogers, how does the Center differ from St. Swithins of the Swamp Medical Center, also located in our city?

A: I believe that our name and Vision Statement, "The concern of nursing is all people, not merely the ill," eloquently describes our focus and purpose and thus our differences. In the traditional view, medical centers are based on the medical model. Pathology or illness is the driving force. The offending organ, system or body part is generally treated pharmacologically, surgically, occasionally psychologically, and the "patient" is then sent on her/his way. At our Center, our baccalaureate prepared Registered Nurse staff, who implement the new worldview, are concerned for and participate with the whole human being. The client is never treated as a package made up of parts. Illness is not a prerequisite to access the Center. The provision of health promotion services, in concert with the client, is a

high priority. The Center views each health care discipline to be of equal importance and benefit to the client in distinct ways. And lastly, the provision of ongoing continuing education is essential. This facilitates awareness and utilization of ever changing modalities which are completely within the scope of independent professional practice. Continuing education is also a nutrient for the conduct of nursing research, dissemination and application of findings to practice and the advancement of the profession.

Q; Is there anything you wish to say to the nurses of the 22nd century?

A; The same thing I said in 1988. The future demands new visions, flexibility, curiosity, imagination, courage, risk taking, compassion and an excellent sense of humor.

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