The relationship between engagement in occupation and healthfulness is explored. Health is viewed not as the absence of organ pathology, but as possession of a repertoire of skills that enables people to achieve their vital goals in their own environments. This sort of health, reflecting adaptability and a good quality of life, is possible for all people, including those with chronic impairments.

Theoretical and research literature from an array of disciplines explores the influences of occupation on various aspects of health. These include interests, satisfaction in everyday doing, balance, the latent consequences of work, and transcendence. Support is provided for a relationship between activity level and survival. To improve the life opportunities of those they serve, occupational therapists need to become ardent students of life’s daily activities, grappling with the ambiguity and complexity of occupation, the occupational human, and the contexts in which occupation takes place.

I shall view health, not as the absence of organ pathology, but as an encompassing, positive, dynamic state of “well-beingness,” reflecting adaptability, a good quality of life, and satisfaction in one’s own activities. Notice that this perspective of health does not exclude persons with disabilities. They may have irremediable impairments but still possess the potential to be healthy, for example, by developing and using skills to achieve their vital goals (Pörn, 1993).

What is the connection between engagement in occupation and health? This question is crucial for humankind in the new millennium, for the 21st century will certainly usher in an unprecedented “era of chronicity” due to advances in medicine’s ability to preserve life. What is thought about how people, including those with chronic impairments, achieve healthfulness through the use of their hands, minds, and will?

Assumptions
I always urge my graduate students to make their as-

R"eilly’s (1962) fundamental hypothesis “that man, through the use of his hands as energized by mind and will, can influence the state of his own health” (p. 2) proposes a significant relationship between engagement in activity, as dictated by the human spirit for occupation, and healthfulness. I shall explore that connection by describing my views of occupation and health, sharing some assumptions, reviewing relevant ideas from an array of disciplines, and drawing implications for occupational science and its application in occupational therapy.

This article is based on my continuous search for ideas from other disciplines, a synthesis of which may contribute to the scholarly foundations of occupational therapy (occupational science) and should therefore be seen as a work in progress.

Views of Occupation and Health
The human spirit for activity is actualized, in a healthy way, through engagement in occupation: self-initiated, self-directed activity that is productive for the person (even if the product is fun) and contributes to others. Occupations are organized into patterns or the “elemental routines that occupy people” (Beisser, 1989, p. 166). These activities of daily living (ADL) are categorized by our culture as play, work, rest, leisure, creative pursuits, and other ADL that enable us to adapt to environmental demands. Dewey’s (1910) criteria for a child’s occupation were that it be of interest, be intrinsically worthwhile (relevant personally and socially), awaken curiosity, and lead to development. Engagement in occupation enables humans to learn competency.

I shall view health, not as the absence of organ pathology, but as an encompassing, positive, dynamic state of “well-beingness,” reflecting adaptability, a good quality of life, and satisfaction in one’s own activities. Notice that this perspective of health does not exclude persons with disabilities. They may have irremediable impairments but still possess the potential to be healthy, for example, by developing and using skills to achieve their vital goals (Pörn, 1993).

What is the connection between engagement in occupation and health? This question is crucial for humankind in the new millennium, for the 21st century will certainly usher in an unprecedented “era of chronicity” due to advances in medicine’s ability to preserve life. What is thought about how people, including those with chronic impairments, achieve healthfulness through the use of their hands, minds, and will?

Assumptions
I always urge my graduate students to make their as-

Elizabeth J. Yerxa, EdD, LHD (Hon), ScD (Hon), OTR, FAOTA, is Distinguished Professor Emerita, Department of Occupational Therapy, University of Southern California, Los Angeles, California. (Mailing address: Route 1, 196 Columbine, Bishop, California 93514)

This article was accepted for publication March 17, 1998.
sumptions explicit, so I have to follow my own advice:

1. I shall view people as complex, multileveled (biological, psychological, social, spiritual), open systems who interact with their environments (Kagan, 1996) by using occupation to make an adaptive response to its demands. Consequently, human beings cannot be reduced to a single level, say that of the motor system, and retain their richness or identity. Similarly, water cannot be reduced to hydrogen and oxygen and still be wet and drinkable.

2. The occupational therapy profession is founded on an optimistic view of human nature (Reilly, 1962). Occupational therapists discover a person's resources and emphasize what that person can or might be able to do instead of the person's incapacities; what's right instead of what's wrong. We are "search engines" for potential. Our profession is committed to improving life opportunities for all people, including those with so-called chronic impairments, a category that includes most of the persons we serve.

3. The postindustrial society is in danger of creating masses of throw-away people, a burgeoning underclass whose chronic impairments, homelessness, mental illness, and inadequate education and skills leave them outsiders in an increasingly technical, complex, and fast-paced society. In important respects, most of society, except for an elite superclass, may become an endangered species occupationally. As Beissel (1989) said when he lost the ability to work as a physician due to paralysis, "My place in the culture was gone" (p. 167). Similarly, for large segments of society, Rifkin (1995), an economist, predicted the "end of work." Work as we have known it may be replaced by a "technopoly" managed by an elite class who keeps the robots and computers operating, leaving millions without a job or a place in society. This endangerment to health and well-being is profound because our society lacks an agreed-upon, valued substitute for work. Because we often view work as an economic necessity rather than a biological, moral, and social imperative, we frequently fail to recognize the potential impact of unemployment and loss of occupational role on human health. The more than 70% of working-age persons with disabilities who are currently unemployed provides a window into the future (Bickenbach, 1993).

Relation of Engagement in Occupation to Health Interests

Storr (1988), a British psychiatrist, proposed that our society has overvalued intimate relationships while paying too little attention to "work in solitude" as a source of health and happiness. Two opposing motives operate throughout life, one to bring us closer to people and another for autonomy. The second is as important as the first.

Creative persons classed among the world's great thinkers often lacked close personal ties. For example, Descartes, Newton, Kant, Nietzsche, Kierkegaard, and Wittgenstein lived alone for most of their lives, finding their chief value in the "impersonal" (Storr, 1988). The impersonal includes interest in doing almost anything from breeding carrier pigeons to designing aircraft. Such interest contributes to the economy of human happiness by fulfilling the need for autonomy, leading to both adaptation and creativity.

Storr (1988) criticized psychiatry and the social sciences for overlooking the importance of pursuing interests to meaning, happiness, discovery, creative contribution, and the human search for some pattern that makes sense out of life. Such pursuits can be a matter of life and death. Acting on interests may prevent mental collapse and subsequent death for persons in states of extreme deprivation. The capacity to be alone while pursuing one's unique interests is a valuable health resource, fulfilling the need for autonomy and achieving personal integration through activity one believes is worth doing. Interests energize occupation.

Satisfaction in Everyday Doing

When I become discouraged by the high-tech, business-oriented, specialist trajectory of our culture, I read Adolph Meyer (1931/1957). He never fails to revitalize my enthusiastic respect for the idea of occupation. Meyer (1922/1977) focused on the person's everyday doings and actual experiences as primary resources for health. Health was assessed by one's relative capacity for satisfaction, "doing and getting enough" in those cycles of activity and composure that mark the rhythms of life. Meyer's (1931/1957) formula for satisfaction included the components shown in Figure 1. His view of satisfaction and health suggests major concepts for investigation by occupational scientists. For example, capacity implies that people be viewed as individuals who

![Figure 1. Formula for satisfaction (Meyer, 1931/1957, p. 81).](http://ajot.aota.org/pdfaccess.ashx?url=/data/journals/ajot/930026/ on 06/18/2017 Terms of Use: http://AOTA.org/terms)
have unique skills and resources; opportunity requires attention to environmental qualities such as novelty, affordances, attractors, and challenges that will stimulate activity; and ambition involves energizers of action such as interest, curiosity, will, desire, and personal perceptions of skills. In interaction, these contribute to satisfaction by influencing both performance (generating feedback) and mood (encompassing one's being).

Meyer (1931/1957) placed this dynamic relationship within a cultural context, showing that both other people's appreciation of what we do and our own expectations of ourselves contribute to satisfaction. The formula suggests that health may be influenced by discovering or developing new capacities, changing the environment, nurturing ambition, improving performance and modifying mood, all in ways appreciated by one's culture and acceptable to oneself. Meyer (1922/1977) proposed that occupational therapists provide opportunities rather than prescriptions in the spirit of this formula.

His formula applied to all people—physicians, psychiatric patients, and the public. Thus, health via satisfaction was possible for all, rather than requiring a special, separate track for those with psychopathology. Patients with mental illness were part of the mainstream of society, seeking the same satisfactions as anyone else, capable thereby of influencing their own health.

Meyer (1931/1957) saw potential everywhere; all people possessed assets and capacities: "A study and use of the assets, at the same time we attempt a direct correction of the ills, is the first important condition of a psychobiological therapy" (p. 157). But he was not blind to the challenge he posed: "To use the patient's assets is a more difficult problem than using something under our control" (p. 157). Capabilities discovered and nurtured could overcome psychiatric problems, which he viewed as problems of adaptation.

Meyer's (1931/1957) optimistic view of people emphasizing their resources, capabilities, habits, and skills that enable them to adapt to their environments with joy, satisfaction, and harmony places the spirit for occupation as central to human healthfulness. It is remarkable that his philosophy was applied in the early 1900s, long before the advent of psychotropic medications, because his patients must have exhibited severe symptoms rarely seen today. Yet he viewed even these persons as capable of healthy satisfaction through occupation.

**Balance**

**Activity** Many theorists whose ideas are relevant to occupation and health propose the need for some sort of "healthy" balance. For example, Meyer (1922/1977) noted that people organize themselves in a kind of rhythm as they carry out their daily rounds of activity. To be healthy, people needed to be attuned to the larger rhythms of night and day, of sleep and waking hours, of hunger and its gratification and finally the big four—work and play and rest and sleep which our organism must be able to balance even under difficulty. (p. 641)

Meyer asserted that only by "actual doing" (p. 641) or performance could this balance be obtained. Consequently, all people needed to be provided with opportunities to work, to achieve pleasure in their own achievement, and to learn a happy appreciation of time and the sacredness of the moment. This balance was learned through organizing one's own actions.

Pörn (1993), a contemporary philosopher, related health to people's ability to achieve their own goals through engagement in daily life activities and routines. He viewed people as acting subjects (not reacting objects). People, as actors, draw on three essentials: "a repertoire," an organized collection of abilities to act; an environment; and goals. Vital goals are personal objectives necessary for minimal happiness (p. 303). According to Pörn, health consists of achievement of a complex balance or equilibrium between people's environmental circumstances and the ability to realize their goals through a repertoire of abilities. Health is a kind of wholeness and general adapt­edness that does not require freedom from pathology.

How could such healthfulness be assessed? We could look at the adequacy of one's repertoire (organized abilities to act), the appropriateness of one's environment (especially the opportunities it provides to exercise abilities), and the extent of realism in the person's goals in relation to both the environment and the repertoire.

How might health be fostered in a way that preserves and defends adaptation? This might be accomplished by addressing the repertoire (e.g., developing new skills for increased competence), the environment by modifying its challenges, and the goals by helping the person alter his or her objectives. All three components need to be balanced for holistic care directed toward human agency.

Occupational therapists know this in their bones and hearts. In Sweden, they participated in research that validated Pörn's (1993) theory between persons with and without impairments. In this research, ability to achieve one's vital goals (via a repertoire of skills) was found to be more important to life satisfaction than degree of physical impairment among those with stroke (Berntspång, 1987).

Other theorists who have related balance to health include Csikszentmihalyi (1975), who posited the need for a balance between self-perceived skills and environmental demands, and Reilly (1962, 1969, 1974), who related health to a balance between degree of environmental challenge and capacity for learning the skills, rules,
and habits necessary to fulfill occupational role expectations. Offering a "just-right challenge" that enables an adaptive response promotes a crucial balance for health-promoting occupational therapy practice.

Information. Klapp (1986), a sociologist, proposed the need for another sort of balance concerning information and action. Today, health is threatened by the boredom that permeates postmodern life, creating a thick cloud over people's everyday experience. We feel trapped, satiated, habituated, and desensitized because we are bombarded by meaningless stimuli from the media, "noise" that requires no response. Listen to the monotonous, ever-urgent tones used by announcers and observe the sheer volume of noise created by the endless commercials and repetitious banality of the media. "Our ears are overwhelmed while we are denied a voice," Klapp observed (1986, p. 51). He defined information as "useful knowledge," contrasting it with "entropy" (p. 120), a tendency to randomness and confusion. When input does not arouse interest but continues relentlessly, people often escape into passivity or health-threatening "social placebos," such as alcohol, drugs, and other mood-altering addictions.

The desired balance that buffers boredom and contributes to health consists of "meaningful variety" that encourages learning and "meaningful redundancy," which is so familiar, reliable, and reassuring that it contributes to warm memories and a sense of community (Klapp, 1986, p. 118). (I think here of cultural rules and rituals.) People need to develop skill to respond to this overload of meaningless by learning to view their boredom as a signal for action. To be healthy, they need to be taught to create an individualized balance of meaningful variety and redundancy through discovering, developing, and acting on their own interests and by participating in the rules, habits, and rituals of their cultures.

Meyer's (1922/1977) vision of providing opportunities rather than prescriptions, contributing to performance and mood, offers occupation as an alternative to this health-threatening imbalance. Instead of escaping into unhealthy social placebos to alter their moods, people could learn to achieve their own balance of meaningful variety and meaningful ritual through engagement in activity worth doing.

Aristotle might have been right about the golden mean. Health as adaptation, satisfaction, and quality of life experience seems to require achievement of a desirable balance between environmental and personal attributes. Such a balance is highly individualized and is learned through opportunities to act on the environment as an agent. We need to learn much more about such healthy balances and how they might be fostered.

The Latent Consequences of Work

Recently a psychiatrist asked me, "Why is work so important to our patients? Why can't some other activity take its place?" Liebow's (1993) anthropological study of homeless women revealed their obsessive preoccupation with looking for and finding a job. Our own research with men who had spinal cord injuries found that they reserved the category of "work" almost exclusively for paid employment, even though they were engaged in many occupations that could have been called work (Yerxa & Baum, 1986). How is participation in the apparently significant occupation of work related to health as adaptation?

In technologically sophisticated societies, work is separated from other activities, such as leisure. Relationships that are largely based on work constitute a major source of societal structure and order (Argyle, 1987). Work appears to have a psychologically stabilizing effect on people. Leisure, to be satisfying in any important sense, needs to be viewed as the moral equivalent of work (Argyle, 1972) to fill its culturally significant role. People who are unemployed and have no organized leisure often become depressed, losing their sense of identity and purpose in life as well as their health.

Jahoda (1981) asked, why is work, as Marx observed, such a fundamental condition of human existence that people eat to work, not the other way around? She differentiated the "latent consequences" (p. 188) of work from its manifest outcome of earning a living. Latency meant the unintended but significant "by-products" of being employed (p. 188). Five latent consequences of employment seem relevant to health:

- Employment imposes a time structure on one's day.
- Employment implies regularly shared experiences and contacts with persons outside one's immediate family.
- Employment links persons to goals and purposes transcending their own.
- Employment defines important aspects of personal status and identity.
- Employment enforces activity, providing a predictable demand for action. (Jahoda, 1981, p. 188)

Jahoda (1981) did not address the experience of "flow," that autotelic satisfaction in simply doing the work (Csikszentmihalyi, 1975), which is an important product for many people, nor did she discuss work's latent consequences for social units such as the family. However, her observations support the importance of work to health. Remove employment and you remove a person's strongest tie to reality (Freud, 1930), his or her place in the culture, threatening healthfulness. Work is supportive of health
even under poor conditions. People may dislike their jobs, but they often dislike unemployment more (Argyle, 1987).

I still await the predicted utopia in which leisure becomes our major occupation. For leisure to be health promoting, it would have to convey the same latent consequences as work. Instead, the laboratory of unemployment more (Argyle, 1987).

People may dislike their jobs, but they often dislike unemployment more (Argyle, 1987). For leisure to be health promoting, it would have to convey the same latent consequences as work. Instead, the laboratory of unemployment more (Argyle, 1987).

The manuscript of Frankl’s first book was confiscated when he was searched before incarceration. He felt this as a profound loss. His unfulfilled desire to rewrite the book not only helped him survive the rigors of camp life, but working on it, reconstructing the manuscript, and scribbling key words in shorthand on tiny scraps of paper, also enabled him to ward off attacks of delirium. Engagement in occupation, albeit mental, also enabled him to transcend his immediate disgust and despair. He visualized himself in a warm lecture room in front of an attractive audience. He was giving a lecture on the psychology of the concentration camp. By so doing, he rose above the suffering of the moment. Occupation enabled him to objectify and describe his oppressing situation from the “remote viewpoint of science” (Frankl, 1984, p. 95), transforming his emotions from despair into an interesting scientific study that he, himself, conducted.

Extreme environmental degradation reveals the potential transcending effects of engagement in stark clarity. People were more likely to survive such conditions when they had interests and tasks worth doing and were able to create transcending experiences that restored their sense of autonomy (Frankl, 1984).

Relevant Research on Occupation and Health

Hardy Personality

Kobasa (1982), an existentialist, believed that people construct a dynamic personality—“being in the world” (p. 6)—through their own actions. Because their life situations are always changing, they inevitably encounter stress. She asked, how do people confront unavoidable stresses and shape their lives successfully?

Her theory and research supported the idea of a “hardy personality” that resists stress and remains healthy. (In contrast to my definition, she defined health as lack of physical or psychiatric symptoms.) The three characteristics contributing to hardiness should interest occupational therapists:

- **Commitment**—“ability to believe in the value of who one is and what one is doing” (Kobasa, 1982, p. 6) involving oneself fully in life, including work, family, and social institutions. An overall sense of purpose, goals, and priorities acts as a buffer to stress.
- **Control**—“tendency to believe and act as if one can influence the course of events” (p. 7). Stress was viewed as a predictable consequence of one’s own activity and subject to one’s own direction.
- **Challenge**—“a belief that change rather than stability is the normative mode of life” (p. 7). Stress was viewed as an opportunity or incentive rather than as a threat. Hardy people search for new, interest-
These three components contribute to “hardiness” or the ability to resist stress and maintain health. Kobasa hypothesized that when life is stressful, people with such hardiness would remain healthy. Her hypothesis was supported by research with male business executives, male general practice lawyers, and female medical outpatients in retrospective and prospective studies, using subjective and objective reports of illness indicators.

Kobasa’s (1982) research connecting commitment, control, and challenge to hardiness in the face of stress supports the use of occupation as therapy to prepare people for engagement in the practical endeavors of everyday life. For if Meyer (1931/1957) was correct that people learn to achieve health in the doing, then such hardiness may be learned and developed through engagement in occupation. Gaining a sense of commitment in what one is doing, a sense of control over the course of events, and the seeking of challenges as a source of interest are products of one’s adaptive responses to a “just-right” degree of challenge. In Kobasa’s (1982) work, these products resisted the inevitable stressors of daily life and enabled people to maintain health. The most important piece missing from Kobasa’s work is the process by which such characteristics are constructed by the person’s actions in real life. I propose an important role for occupation.

Mortality

In today’s world, engagement in some occupations is often trivialized, sometimes considered merely diversion. This view may reflect our ignorance of the contribution of engagement in occupation not only to health, but also to actual survival.

In an 11-year study of the long-term survival of persons with spinal cord injuries, Krause and Crewe (1991) compared the characteristics of those still alive with those known to have died. The researchers hypothesized that the survivors would have superior medical and psychosocial adjustment. “Medical adjustment” measured by non-routine medical appointments and hospitalizations, was expected to be the most important predictor of survival. But neither recent medical history nor emotional adjustment predicted survival. Instead, strong support was found for a relationship between activity level and survival. Those who were more active, vocationally and socially, in participating in a round of daily occupations were more likely to have survived. Activity level was more important than medical history or a mediating emotional state. The authors, both psychologists, concluded that “counseling must go beyond facilitating emotional adjustment” (p. 84). Rather, people need to be taught the skills to participate in life, skills that might influence survival itself.

In another study (Wright, 1983), 100 patients with severe disabilities underwent rehabilitation in a hospital that encouraged their maximum participation. Patients designed their own schedules and solved problems as they arose. If a wheelchair needed repair, the patients worked out how to get it done. One year after discharge, these more “occupationally autonomous” patients not only showed a greater degree of sustained improvement in activities of daily living, but also a lower mortality rate than did the control group.

Both theory and research demonstrate that an environment that provides opportunities for active engagement in life contributes to health, well-being, independence, and survival. We need to take another look at the trivialization of occupation. What could be less trivial than survival?

Conclusions

An increasing body of knowledge from an array of disciplines supports Reilly’s (1962) great hypothesis. Humans can influence the state of their own health, provided that they are given the opportunity to develop the skills to do so. The human spirit for occupation, developed through eons of time in evolution, unfolding through development, and actualized through daily learning, needs to be nurtured to contribute to the health, quality of life, and survival of persons and society.

Occupational therapists and occupational scientists need to reaffirm that engagement in occupation, rather than being trivial, is an essential mediator of healthy adaptation and a vital source of joy and happiness in one’s daily life. In the new millennium, the era of chronicity and the potential “end of work” as we have known it will pose particularly strenuous challenges: How can our profession help create an environment in which people have opportunities to engage in the “moral equivalent of work” and thus contribute to their own health? How can all people be provided with opportunities or “just-right challenges” to discover their interests and potential for something worth doing?

Occupational therapy could promote a new concept of health to replace the traditional view. Health, perceived as possession of a repertoire of skills enabling people to achieve their valued goals in their own environments, would then be possible for all people, including those with chronic impairments. A major objective would be to achieve “equality of capability” (Bickenbach, 1993). To do this, we need to learn much, much more about how human beings develop the adaptive skills, rules, and habits that enable competence as well as how occupational therapists might create a “just-right environmental challenge” to enable an adaptive response. Such “coaching” from
occupational therapists could benefit all people who need
to develop skills in order to survive, contribute, and achieve
satisfaction in their daily life activities, whether or not they
have impairments.

To serve humankind well requires that we discover
much more knowledge about people as agents, in their
own environments, engaged in daily occupations. We
need to broaden our concept of ADL beyond self-care to
include study of the daily routines that occupy people in
real life contexts. To learn what we need to know requires
that we accept the challenge of becoming ardent students
of life’s daily activities, grappling courageously with the
ambiguity and complexity of occupation, the occupational
human, and the contexts in which occupation takes place.
Only then will we fulfill our commitment to persons with
chronic impairments and assure that our humanistic val­
ues are expressed in an occupational therapy practice that
contributes to life opportunities and health for a new mil­
leum. ▲

Acknowledgments
A major portion of this article was presented as the Wilma West
Lecture at the Ninth Occupational Science Symposium at the Uni­
versity of Southern California on April 12, 1996. It is respectfully
dedicated to the memory of Wilma West, MA, OTR, FAOTA, who
contributed so much of her spirit to occupational therapy.

References
Argyle, A. (1972). The social psychology of work. New York: Lap­
linger.
ven.
Beisser, A. (1989). Flying without wings: Personal reflections on
being disabled. New York: Doubleday.
ments disabilities and life satisfaction with special emphasis on perception
and occupational therapy. Unpublished medical dissertation, Umeå
University, Umeå, Sweden.
to, Ontario: University of Toronto Press.
Csikszentmihalyi, M. (1975). Beyond boredom and anxiety: The
Frankl, V. (1984). Man’s search for meaning (Rev. ed.). New York:
Washington Square.
garth.
Values, theories and approaches in social research. American Psycholo­
gist, 36, 184–191.
A52.
Klapp, O. (1986). Overload and boredom: Essays on the quality of
Kohasa, S. (1982). The hardy personality: Toward a social psycho­
logy of stress and health. In G. Sander & J. Sults (Eds.), Social
psychology of health and illness (pp. 3–32). Hillsdale, NJ: Erlbaum.
survival of persons with spinal cord injury: An 11-year prospective
study. In M. Eisenberg & R. Glueckauf (Eds.), Psychological aspects of
disability (pp. 76–84). New York: Springer.
Charles C Thomas. (Original work published 1931)
published 1922)
Pörn, I. (1993). Health and adaptedness. Theoretical Medicine,
14, 295–303.
Reilly, M. (1962). Occupational therapy can be one of the great ideas of 20th century medicine, 1961 Eleanor Clarke Slagle lecture.
Sage.
tine.
Vash, C. L. (1981). The psychology of disability. Springer series on
rehabilitation, 1. New York: Springer.
tions and life satisfaction among people with spinal cord injuries.
Occupational Therapy Journal of Research, 6, 271–283.