Aging and Human Motivation

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Aging and Human Motivation

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Foreword

I first met Ernest Furchtgott twenty-five years ago after joining the faculty of the College of Social Work at the University of South Carolina. At that time, Ernie chaired the Department of Psychology. In the following three years we collaborated with an Academic Committee on Gerontology in conceptualizing and shaping the University's Certificate of Graduate Study in Gerontology Program, guiding it to final approval by the South Carolina Commission on Higher Education. For twenty years we team-taught our graduate-level course, "Psychosocial Approaches to Gerontology," involving colleagues from related disciplines. Over the years, we examined and jointly graded hundreds of research posters prepared by our graduate students in gerontology as their final course requirement.

Several years ago, Ernie formally retired from the university. He instantly agreed to my request that he continue teaching the psychology of aging portion of our interdisciplinary course. On campus nearly every day since retirement, Ernie frequently telephoned to discuss a recent article in *The Gerontologist* or a paper presentation that had excited him at the Gerontological Society's annual scientific meeting. He maintained a clear presence in the academic community.

Over the years we discussed such diverse topics as the economics of aging, family caregiving issues, volunteerism by older adults, the ups and downs of our university's athletic program, South Carolina's higher education system, and even synagogue politics. A few days before his sudden death, we had a long discussion about the importance of reshaping the nation's long-term care system for older adults. Given the opportunity and a forum in which to advocate for long-term care reform, Ernie would have made a compelling argument pertaining to the needs of our nation's growing older population. At other times, he often shared with me his pride in the many achievements of his children and grandchildren. He was extremely devoted to his family, and with his wife, Mary, looked forward to visits at the beach and in their homes throughout the year.

In many ways, *Aging and Human Motivation* reflects Ernie's understanding of the multidisciplinary nature of the expanding fields of

gerontology and psychology. The book not only defines and extends our understanding of motivational forces in human behavior; it also shows the author's respect and grasp of the knowledge being generated by researchers from numerous disciplines in the humanities and sciences. He intended for this book to be useful to the many disciplines that conduct research and provide direct and indirect services for older adults.

This book provides readers with an important understanding of the psychosocial aspects of the aging process. Chapters devoted to coping, the self, the meaning of life, social relationships, and achievement motivation indeed provide glimpses of the author's personal journey from middle adulthood toward retirement and into healthy older adulthood. The importance of social motivation, reduced isolation and loneliness, and meaningful social roles convey his underlying message that gerontologists and other helping professionals need to direct greater efforts toward health promotion, psychological wellness, and creative uses of leisure time for older adults. Ernie's continued thirst for learning, commitment to research and teaching, and his participation in community and religious organizations were indicative of his personal motivation and energetic approach to older adulthood.

Ernest Furchtgott earned his doctoral degree from the University of California, Los Angeles, in 1950. He served as a member of the Psychology Department at the University of Tennessee until 1969, when he came to the University of South Carolina, Columbia, as Professor and Chair of the Psychology Department. During a long career in higher education, he conducted research with grants from the National Science Foundation, the United States Naval Radiobiological Defense Laboratory, the Atomic Energy Commission, the National Institutes of Health, and numerous other government agencies. His research focused on the neural, genetic, and behavioral effects of atomic radiation, associative learning, and aging.

At the University of South Carolina, he taught courses in experimental psychology, the psychology of aging, and developmental psychology. He was the first graduate director of the Certificate of Graduate Study in Gerontology Program and first director of the South Carolina Center for Gerontology. He received many professional honors and awards and was a member of numerous professional, scientific, and community organizations.

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Preface

Interest in motivation can be traced to the earliest stages of recorded history and, today, many of its aspects permeate numerous disciplines in the humanities and various sciences. The public shows much concern with problems in motivation; some examples include using motivational indices in the selection of students for admission to colleges, the popularity of speakers who sell "motivational" programs to businesses, the efforts of the leisure industry to attract retirees to relocate to certain areas of our country, and why and how people cope with various stresses. Though, in the past, courses in motivation were frequently taught in departments of psychology, currently, this practice is uncommon. Chapter 1 attempts to develop the rationale for the publication of this monograph, which deals primarily with the motives that are important in the lives of our older, relatively healthy people, who are becoming an increasingly large part of our total population.

This volume should be useful in undergraduate and graduate courses in motivation, as well as a source of supplementary readings in various areas of gerontology. Technical vocabulary is minimal, which should make it useful in disciplines other than psychology.

My interest in motivation began a half-century ago in graduate school, though all of my early publications were based on animal research. As I aged, my interests gradually shifted to the human level; this was abetted by personal experiences and insights, as well as a perceived need to combine information about motivation that is scattered in various disciplines. Many colleagues and students, too numerous to mention, have been very helpful in clarifying the issues in this amorphous domain. Special thanks, however, go to Professor Keith Davis, who made comments on the chapter on social interactions. The editorial and secretarial assistance of D. Coleman, J. Noble,

N. Park, and C. Traywick has been invaluable. Last, but not least, my wife, Mary, has provided me not only with much psychological support but has also contributed technical assistance; therefore, this book is dedicated to her.

Contents

CHAPTER 1

Introduction

WHY THIS MONOGRAPH?

Most young adults are employed or enrolled in educational institutions to prepare for employment, whereas only a small percentage of older persons is working for pay. Not only are there distinct settings of daily activities in which there are age differences in the frequency of participants, but also in most significant aspects of life, we find major age-associated behavioral differentiation. Among the most striking overt behavioral differences between young and old persons, readily evident by gross observation, are decreases in vigor, speed of movement, motor coordination, and physical strength. All of these constructs denote an energetic component and they all exhibit a progressive decline with age. Similar types of changes are also apparent during aging in members of most lower species. These organismic decrements will lead to quantitative as well as qualitative changes in various gross behaviors. Younger persons are more likely to be found on tennis courts, ski slopes, and in many other leisure areas requiring sustained physical exertion, while older persons are more likely to sit on park benches and enjoy the tranquillity, or they tend to congregate in shopping malls.

Aside from the differences in activities requiring energy expenditures, ascribable to biological decrements, preferences between age cohorts are also apparent in the choice of clothing, living arrangements, entertainment, and other aspects of everyday living. Thus, older and younger persons differ not only in terms of activities that entail energy expenditures or that depend on optimal sensorimotor functions, but an age factor is also present in the preferences for objects and goals in which energy expenditure may be minimal. Some of this diversity may be attributed to cognitive and/or cultural factors. Age differentiations; though not necessarily in the same domains of life, are apparent in all cultures. We may speculate that these changes are somehow related to

biological decrements; however, there are other possible factors, such as the perceived finitude of life, current Western society's belittling the role of older people, and other social phenomena that also may contribute to the observed changes in behavior.

Since the dawn of written history, most references to aging have contained descriptions of similar changes in behavior, many of which are considered to be decremental. For example, Ecclesiastes (XII: 1–7), in describing the latter part of life, speaks of "the evil days . . . in which there is no pleasure . . . strong men are bent . . . one fears to climb a height . . . and the caperberry can no longer stimulate a desire." von Mering and Weniger (1959, p. 282) note that in the modern literature on aging, the specific advice concerning a sound later maturity includes "the control of exhaustion, the development of high motivation [*sic*] and special recreational activities and hobbies." Such recommendations are not very different from what could have been gathered from reading ancient writings. For our purposes, however, it is interesting to note that von Mering and Weniger refer to the importance of motivational concepts as keys to healthy aging. They indicate, of course, that today we can go beyond description to the measurement of some of these factors.

MOTIVATION

People have always speculated about the "why?" of action. There is usually a desire to understand the basis of one's activities; some of this may be attributed to mere curiosity but, more likely, it is an attempt to control or influence one's behavior. From many perspectives, it is an effort to minimize discomforts. With the growth of science, a hallmark of modern societies is the effort to improve people's lives, including the debilities of advanced age. *Successful aging* or *aging well* have been popular phrases, appearing not only in the scientific literature but also in the general media. To achieve such a state requires that we first determine the meaning of the phrase and the factors that may contribute to success or wellness.

Aristotle characterized soul in terms of two faculties, one of which was movement or activity (*On the Soul,* Book III, Chapters 9–11). The seventeenth-century philosopher Spinoza postulated that "the primary fact about man is his *conatus,* striving" (Roth, 1929, p. 105). In most Western European languages, the term *motive,* derived from the Latin root for motion or movement, was used to denote excitement, cause, desire, want, drive, and other similar concepts, each of which is related to activity or a disposition to act. The historian of psychology, Boring (1950, p. 692), defines *dynamic* psychology as the psychology of motivation, a term that he attributed to Woodworth. The term is derived

from the Greek root for power or strength. We see here a juxtaposition of movement and strength, charactertistics that decline during aging.

In the past 100 years, during which gerontology developed as a science, there has been a frequent call to understand the importance of motivation in tracing aging changes. For example, in the introduction to his chapter on muscle in the *Handbook of the Biology of Aging,* the biologist E. Gutmann (1977) began his review with the observation that "old age is a period when disorders of the locomotor system prevail" (p. 445). He then goes on to say that "from a physiological point of view, the marked decline in the efficiency of motor functions is a very complex phenomenon and includes changes in motivation [sic], receptors, nervous pathways, central synaptic mechanisms, and effectors" (p. 445) Guttman begins his analysis of the locomotor changes by specifying motivation as one of the factors that contributes to the age-associated declines, but there are no further specific references to any research on motivation in his review, though all of his other factors are discussed. Again, in the section on the dynamic output in senescent muscle, Gutmann indicates that a decrease in motivation may be an important factor in the loss, but here, too, this is not elucidated (p. 458).

In 1993, six major American science organizations concerned with behavioral gerontology released a report on research needs, entitled "Vitality in Later Life" (American Psychological Association, 1993). Though the term *motivation* does not appear in the document, several of the major issues implicitly include a search for a better understanding of the motivational factors influencing the later stages of life. Indeed, the term *vitality* implies energy, drive, and related motivational aspects. Among the many recommendations in the report, there is a section that suggests research efforts be directed toward an understanding of a person's perception of control, coping strategies, adherence to health regimens, seeking of medical treatments, maintenance of independent living environments, and productivity. All of these issues refer to motivation and many of them will be addressed in this monograph. George (1996b), in commenting on the status of the psychology of the life course, deplores the lack of attention that has been given to the analysis of individual motivation. She points out that people seek environments that make them healthier and happier. Yet this field has been relatively neglected.

The Role of Motivation and Some Modern Definitions

Koch (1941), in his analysis of the various uses of the concept of motivation, classified them into seven categories that included force, control of energy expenditure, and a process for initiating activity. Since

organismic activity is usually not random, a directionality factor must also be included in a definition of motivation.

In 1974, Madsen reviewed and compared 30 modern theories of motivation, with a special emphasis on American psychology. A descriptive status of the theories was followed by a systematic metatheoretical analysis of the hypothetical and abstract levels of each approach. It included the epistemological and ontological bases of each theory, the units of analysis, and the nature of the hypothetical terms and variables that were employed. There was no overall synthesis of the theories—most likely an impossible chore. Madsen's treatise had little impact on subsequent work in motivation. There are no references to it in any of the volumes of the *Nebraska Symposium on Motivation* or in any volume of the *Annual Review of Psychology,* both publications that presumably cover significant developments in the field.

In a thoughtful essay, McReynolds (1990) noted that it has been difficult to articulate a rigorous definition of motivation, though there has always been a need to explain behavior using conative constructs. As already noted by Aristotle, the latter is one of the characteristics of a person or an organism. To clarify a complex construct, scientists have frequently resorted to the use of metaphors, analogies. Among examples in the physical sciences McReynolds mentions benzene rings in chemistry and Rutherford's model of the atom.

In his historical review of the role of metaphors applied to motivation by philosophers and psychologists, McReynolds (1990) classified them into five basic categories:

1. Persons as pawns; a metaphor not currently in vogue in psychology.
2. Persons as agents; readiness to act and choices. Currently, this metaphor is seen more frequently in the writings of philosophers than psychologists.
3. Inherent tendencies; these include the modern constructs of instinct and sundry genetic concepts.
4. Persons as organisms; the concept of organismic movement and various hydraulic metaphors, including drive and cathexes, fall into this category.
5. Persons as machines; this is the predominant modern metaphor.

These metaphors do not preclude the simultaneous application of those classified in categories 2, 3, and/or 5.

It is apparent that there is much overlap between the categories. McReynolds uses five categories, but not all of them are in common use today in the psychological literature. Though theorists usually do not

acknowledge it, metaphors usually reflect the prevailing worldview (e.g., the current use of computer metaphors in cognitive psychology). McReynolds also postulates that the metaphors employed tend to be topical. There have been minimal attempts to apply the same metaphor to encompass the role of motivation in a variety of behavioral situations. In his summary, McReynolds points out that metaphors have served a useful purpose in clarifying some motivational issues. Specifically, there is the distinction between the concept of force or strength and direction of motivated behavior. It is apparent that this dichotomy is based on a physical energy metaphor.

An example of the fusion of various metaphors may be seen in the personality psychologist Stagner's (1977) approach. He viewed motivation; as general energy mobilization, specific motives are the results of deprivations or *discrepancies* between expectations and existing resources. For Stagner, the basic motivational mechanism is a discrepancy-detecting and -reducing system. Such an analysis is applicable not only to the motives involved in the maintenance of a biological state of equilibrium or homeostasis, but also to such psychological constructs as adaptation level, dissonance, social comparison, and so on. Cofer and Appley (1964, pp. 326–329) suggested that it is also appropriate to use the term *social homeostasis* when the action of two or more organisms acting in concert (e.g., a family, community, etc.) requires adaptation. In ecology, the construct homeostasis, without the modifier *social,* has been applied to population units (e.g., nest building in insect colonies, foraging in various species, etc.). Some critics have faulted the extension of homeostasis from an individual organism to groups, since a condition of *stability* or adjustment for a group may be contrary to that needed by an individual. Cofer and Appley could not resolve this discrepancy and it would take us far afield to analyze the relationships between the needs of individuals and those of a group.

The concept of homeostasis is discussed in Chapter 9 on stress. It is in the context of the latter concept that Lazarus (1991), in his treatise on emotion and adaptation, refers to a "somewhat portentous [*sic*] term the motivational principle" (p. 92). For Lazarus, motivation is both a personality trait describing an individual's striving to achieve certain goals and a reaction to certain environmental conditions. The two usages are related. An environmental reaction is a function of the individual's latent disposition or trait to achieve certain goals, be it positive or negative. The latter occurs when an individual seeks to escape or remove certain environmental contingencies. The second usage of the term is transactional or relational, in that the individual seeks out environments that are consonant with his or her motives and, conversely, at-

tempts to remove him- or herself from harmful environments. This approach requires an evaluation of the characteristics of the environment to determine congruence with the person's motives. Thus, Lazarus is proposing a cognitive–motivational relationship theory. Thus, even psychologists who do not subscribe to a machine metaphor of motivation still apply an energetic component when they measure motivation.

Appley (1991) analyzed the more recent status of motivation and concluded that despite the current popularity of cognition in psychology, with its emphasis on the self and growth, the concept of equilibrium, balance, stability, or homeostasis is still a viable principle in the analysis of motivation. The popularity of constructs such as intrinsic motivation, stimulus seeking, growth induction, or self-actualization have led to the construct of "cognitive homeostasis." As in Cofer and Appley (1964), the second author again discusses the appropriateness of the term *homeostasis* to activities or behaviors that are not associated with the maintenance of physiological equilibria or the bodily machinery to which those concepts were originally applied.

Robinson (1985, Chapter 4), in his theoretical analysis of motivation, notes that any stimulus impinging on a resting organism is disequilibrating, and most human motives, even the so-called biological ones, sometimes referred to as drives, are not primarily in response to a serious physiological disequilibrium.

A very broad " common sense" psychological definition (Kelly, 1992) of motivation has been presented by B. Weiner (1992, pp. 1–2). The author "simply" asks why animals or people choose to behave in certain ways. In contrast to McReynolds's (1990) five metaphors, B. Weiner dichotomized modern theories of motivation into (1) those that use a machine, mechanistic, metaphor and (2) those that apply a God-like metaphor akin to the classical Cartesian mind–body dualism. In the latter, the emphasis is on the rational judgments that people make in choosing specific behaviors. According to Descartes, most human actions originate with the "will," which is difficult to reduce to simple mechanistic principles (Boring, 1950, pp. 163–165). At first glance, it would seem that Weiner's dichotomy implies that, broadly speaking, motives that can be associated with certain biological mechanisms fall into the machine category while those that are more difficult to associate with specific biological activities fall into the other category. However, Weiner is careful not to make such a simple distinction. Lewin and Heider, who researched primarily in the psychosocial domain, are classified by Weiner as adherents of the machine metaphor, since they both stressed the importance of balance, presumably the maintenance of an optimum internal milieu—homeostasis. We need to remember that on

the human level, even the satisfaction of simple biological needs, such as eating, entails various rational choices.

A slightly different dichotomy was proposed by Subbotsky (1995) based on the work of the Russian psychologists Rubinstein and also Leont'ev (1978, Chapter 5), who postulated that *needs* only arouse a person and the actions that are then taken are directed by motives. In addition, *needs* lead to *activity,* and this in turn then produces other *needs*. Most human motives result from activities that in the past led to the satisfaction of some needs. This resembles Allport's (1947) *functional autonomy of motives.* For Subbotsky, (1995) there are pragmatic or mechanistic motives based on biological needs, largely independent of social and cultural factors, and nonpragmatic motives, such as those based on self-esteem, empathy, moral values, and so on. In essence, however, Subbotsky adheres to the traditional biological and social dichotomy, with a considerable overlap based on the development of nonpragmatic motives from the activities pursued in the satisfaction o biological needs. Subbotsky's dichotomy cannot be accepted literally. Ir assuming that there is an overlap between the pragmatic and nonprag matic motives, he admits that the boundaries between them are fuzzy

Current Status of Research in Motivation

The *Nebraska Symposium on Motivation,* which, starting in 195 was one of the premier annual publications in the field, gradually in th early 1970s switched from reviewing motivation to analyzing other to ics in psychology. It was not until 1990 (Dienstbier, 1991) that the pul lication returned to its initial goals of analyzing problems pertaining motivation; it also included a volume devoted to aging (Sonderegge 1992). In much of experimental psychology, the recent *Zeitgeist* led the information-processing metaphor, with the computer as its tool a model. *Input, storage, retrieval, parallel processing,* and other comput terms entered cognitive psychology and, by extension, much of expe mental psychology. Since, presumably, computers have no motiv emotions, or choices, these areas were neglected by experimental p chologists. In some areas of "soft" psychology (e.g., personality, soci and clinical), problems pertaining to motivation continued to engage searchers. It should be noted, however, that under the hegemony neobehaviorism, with its concept of drive and the popularity of anir experiments, much of the research on motivation from the 1920s to 1950s dealt with studies on food and water deprivation or electric sh stimulation. The effects of these motivational variables may be easily

served in subhuman animals and they can be extrapolated to a very limited extent to the human level. The similarities between the animal and human observations can be seen to a large extent on the physiological level. The use of animal paradigms in experimental psychology is well known. During the first half of this century, psychology and the other social sciences tried very hard to emulate the physical sciences, which in Western culture were looked upon as the archetype of science or even scholarship. In the Golden Age of Theory in American psychology, 1920–1950 (Leahey, 1991, Chapter 7), most studies of motivation by experimental psychologists were devoted mainly to animal behavior. It was assumed that animals could be the models for all, or most, human behavior. At first glance, it seems ironic that the absence of motivational constructs in much of present-day, traditional, experimental psychology, dominated by cognitive theories, makes it appear that in this respect it follows a path similar to Skinner's behaviorism, which also eschewed the concept of motivation in its analysis of behaviors. Leahey (Chapter 13) noted other similarities between information processing, one of the modern forerunners of cognitive psychology, and radical behaviorism. Avoidance of motivational terms by current cognitive psychologists is even more ironic if we consider that for most of the early advocates of cognitive approaches to psychology in the twentieth century, such as Tolman, G. W. Allport, and Lewin, motivation was a core concept in their systems. However, beginning in the 1980s, there has been a gradual revival in the application of motivational constructs even in cognitive psychology. Simon (1995), one of the most influential figures in the application of computer models in psychology, exhorted his colleagues to reconnect cognition with affect and motivation for progress in instructional psychology, since, in addition to cognition, it is necessary also to take motivation into account. Some have already taken this to heart. In the previously discussed theory, Lazarus combines motivation and cognition as a core construct in the analysis of adaptation and coping. This theory encompasses human–environment relationships (Bem, 1995). The reemergence of the concept of motivation should not be surprising. American psychology, almost since its founding, wanted to be recognized as a science that has practical applications in contrast to philosophy (Leahey, 1991, p. 224). Since in many applied fields, such as education or industrial management, the benefits from the use of motivational concepts never diminished, the renewed attention to motivation in scientific psychology was bound to occur.

It is interesting that *Psychological Science* published an essay review (Pervin, 1992) of a book on industrial psychology by Locke and Latham entitled *A Theory of Goal Setting and Task Performance* (1990).