BOOK REVIEW

Daniel Kahneman, Ed Diener and Norbert Schwarz (eds.), *Well-Being: The Foundation of Hedonic Psychology*. Russell Sage Foundation, 1999, 576 pp., USD 55.00.

In 1983, Richard Creel wrote an article entitled "Eudology: the science of happiness". In his conclusion, Creel admitted that he had done little more than say "let's have a science of happiness". Critical voices dismissed the article as just armchair speculation. Almost two decades later, Daniel Kahneman, Ed Diener and Norbert Schwarz have taken a distinct step away from wishful thinking and speculation and toward the definite announcement of a new field in psychology. *Well-Being: The Foundation of Hedonic Psychology* demonstrates that a quiet revolution has taken place in research on quality of life issues during the past two or three decades. The editors have dubbed this new field "hedonic psychology" rather than "psychological eudaimonism" as suggested by Creel, a term which, at least philosophically, holds quite different connotations. *Well-Being* defines hedonic psychology as the study of what makes experiences and life pleasant or unpleasant. Hedonic psychology therefore covers pleasure and pain, interest and boredom, joy and sorrow, satisfaction and dissatisfaction. The authors hope hedonic psychology will become the primary tool for analyzing the full range of evaluative experience, from sensory pleasure to creative ecstasy, from fleeting anxiety to long-term depression, from misery to joy. The editors of *Well-Being* have been successful in assembling a collection of rigorous, state-of-the-art articles on human sensations, emotions, moods, suffering and physiology, and the book is filled with questions and results at the cutting edge of scientific research. Throughout 28 chapters it presents well-documented work and carefully thought-provoking ideas.

Well-Being: The Foundation of Hedonic Psychology is divided into five parts, with chapters written by notable academics. Part I, "Conceptual and methodological measures", inquires into the challenges of assessing subjective experiences. In opening this refreshing book, Daniel Kahneman explores the concept of objective happiness as the average of utility over a period of time. The concept of instant utility of the moment is the basic unit of analysis. This is a bottom-up approach, and Kahneman suggests that subjective happiness is assessed by asking

respondents to state how happy they are overall, whereas objective happiness is derived from the record of such instant utility over a short and relevant period. In other words, the objective happiness approach accepts subjective ratings of experiences at a particular moment, but not global assessments or retrospective evaluations.

Arthur A. Stone, Saul S. Schiffman and Marten W. DeVries (chapter 2) further advocate the usefulness of momentary assessment of experiences, or Ecological Momentary Assessment (EMA) as they name it. Inspired by a long-standing issue in psychology, the authors discuss problems with the traditional retrospective perspective and compare these with the advantages of momentary, or nearly immediate, measurement forms of self-reporting. The chapter argues convincingly for the benefits of momentary self-reports, which have given us new insights in areas such as stress and coping, mood and physiological processes, and psychiatric symptoms. Randy J. Larsen and Barbara L. Fredrickson (chapter 3) provide a useful overview of how emotions may be measured. Leading readers through a series of important issues, their chapter concludes that emotion measures come in many forms and should be used in many forms. The authors encourage researchers to add novel and theoretically based measures to the mix of those already in their armamentarium.

Norbert Schwarz and Fritz Strack then address another important issue on the methodological side of hedonic psychology. Their provoking argument claims that self-reports of subjective well-being do not reflect a stable inner state of well-being. Rather, they say, such assessments are judgements that individuals form on the spot. Referring to a long series of studies, Schwarz and Strack illustrate how contextual factors reduce the reliability of self-reported experiences. Chapter 4 puts particular emphasis on two different ways in which information can influence judgements about well-being. Assimilation effects (such as higher reports of SWB when a happy event comes to mind) and contrast effects (happy events are used to form a standard of comparison) may be at work when judgements are made, and the authors manage to identify some determinants of these distinct and opposing effects.

In closing Part I, George Loewenstein and David Schkade ask a crucial question: Are people aware of the mechanisms that make them happy, and can they apply such awareness to their own lives? One crucial factor in their reflections is the issue of underprediction of adaptation. The phenomenon becomes transparent when, for example,

assistant professors overstate the happiness they expect from a positive tenure decision or assume they will be less happy after being turned down than they actually become. As a reflection of this bias, it is interesting to note that there seems to be a general tendency for people to underpredict the influence of curiosity on their behavior. Curiosity is an affect not yet properly understood, and its contribution to SWB is uncertain but intriguing.

Part II of *Well-Being* is used to explore good moods and pleasant feelings in greater detail. "Pleasure is a positive experience that we seek and that we try to maintain and enhance" says Paul Rozin in chapter 6. He speculates about the functional role of pleasures, which, if they are congruent with cultural values, make it easy for a person to function in his or her culture. He suggests that the subjective and expressive sides of the hedonic system may be quite similar across the different types of pleasures, such as sensory, aesthetic and mastery pleasures. The principle of preadaptation implies that the subjective and expressive system that originated from sensory pleasure is co-opted as the output system for the more complex mastery and aesthetic pleasures.

The emotions that characterize pleasures of the mind – and pleasures of the mind are different in kind from pleasures of the body – arise when expectations are violated, causing autonomic nervous system arousal and thereby triggering a search for an interpretation. So argues Michael Kubovy in chapter 7. This chapter is related to the former in its focus on the interplay between a cognitive structure and an environment. (Both chapters also take advantage of research that has been done on the relationship between music and enjoyment.) Kubovy argues that the pleasures of virtuosity make us want to do things well, and hence we play in order to achieve pleasure. Play, in turn, provides us with skills we need to survive. He also makes the interesting suggestion that the more learning the young of a species must do, the greater the pleasure the individual takes from virtuosity.

What do nonspecialists want to know about pain? That is the perspective of chapter 8, by Erik Eich, Ian I. Brodkin, J.L. Reeves and Anuradha F. Chawla, which furnishes a basic introduction to the field of pain and pain research. The authors are successful in clarifying the relevance and importance of the pain perspective for well-being research. For instance, an individual who loses the ability to feel pain might undergo major changes in lifestyle which in fact compromise rather than enhance the quality of his or her existence. Such arguments

remind us that a notion of SWB as merely the sum of positive affects minus negative ones is simplistic.

The mood system is reviewed by William N. Morris, who points out that opinions diverge as to what moods are. Are moods attenuated forms of emotion, or are they distinctive affective constructs with a function that is different from that of emotion? This is an important issue, because what some investigators call mood is seen by others as something else, with the consequence that comparing studies on mood is sometimes like comparing apples and oranges. Morris goes on to argue that the mood system serves us by assessing the adequacy of our current resources and producing feelings capable of influencing goal-directed activity. It is thus helpful in maintaining the homeostatic balance between perceived resources and demands. In short, moods inform us about the prospects for pleasure or pain. However, Morris might have drawn a clearer distinction between moods and other affective phenomena in his model. It is, for instance, not easy to see how his characterization brings clarity to the distinction between moods and emotions.

This point becomes even more transparent in chapter 10. The eminent author of this chapter, Nico Frijda, has made important contributions to the field of emotion research. His agenda in this text is to present an analysis of emotions in terms of the components of affect, action readiness, autonomic arousal and cognitive activity change. According to Frijda, emotions are responses to the meanings assigned to significant events, which are events relevant to one's concerns; that is, one's well-being. The author puts an emphasis on the adaptive functions of emotions, some of which are important even in current society. Furthermore, Frijda regards emotional space as dimensional, categorical and multicomponential, all three aspects being viable, though not equivalent, representations of emotions.

Opening Part III, Ed Diener and Richard E. Lucas summarize the current status of the subjective well-being concept before they debate how the components of SWB relate to different aspects of personality. The literature they review reports a substantial heritability for the component of SWB, and the authors guide us carefully through such issues as how positive and negative affects might be related to different personality traits, for example extraversion and neuroticism. Their chapter also provides an overview of temperament and heritability studies, in addition to several social/cognitive models such as personal goal theories

and emotional socialization models. Due to the significant influence of genetics and personality, SWB cannot be used as the sole concept of quality of life. The authors point out that the concept must be supplemented with other constructs, for instance the construct of social indicators.

Chapter 12 (Nancy Cantor and Catherine A. Sanderson) focuses on the importance of involvement in daily life. The structure and meaning that participants assign to daily life are a core issue for life satisfaction, and according to Cantor and Sanderson, well-being should be enhanced when individuals are able to pursue their distinct personal goals in ways that are intrinsically valued and autonomously chosen. Moreover, goals should be facilitated in the context of daily life, a fact which implies that the relationship between personal preferences and dispositions should have some match with cultural and subcultural values and that individuals need to be flexible in setting values on goals that are appropriate as they pass through the different stages of life. The chapter reminds us of the important distinction between "doing" and "having", and it argues that individuals perhaps need to develop the "doing" side as much as they need to "have" the resources commonly believed to bring happiness.

Self-regulation is a promising issue in the conceptualization of human functioning. Life experiences have much to do with the regulation of pleasures and pains, argue E. Tory Higgins, Heidi Grant and James Shah at the outset of chapter 13. Here the hedonic principle is taken to denote attraction to pleasures and avoidance of pain. In this classic version, hedonism does not go far enough in explaining the mechanism of quality of life. Like the authors of the previous chapter, Higgins and colleagues stress that there is more to the experience of life than pleasure and pain. By distinguishing among regulatory anticipation, regulatory reference and regulatory focus, this chapter places emphasis on the motivational role of experiences. In particular, the separation of promotion focus (accomplishments, aspirations) and prevention focus (safety, responsibilities) is shown to make a difference in emotional quality. As one might have expected, these concepts are extensions of Higgins' Self-Discrepancy theory, in which the notion of ought selves and ideal selves plays a central role. The chapter even suggests a specific definition of emotion to make it match more properly with the theory: "Emotions are the direct experience of particular types of self-regulatory effectiveness". Moreover, the model introduced here

helps explain an old piece of folk wisdom, which suggests that what makes life worth living is working toward a goal, not simply knowing it was attained.

From yet another angle, well-being is discussed by Howard Berenbaum and his colleagues in relation to sufferings and emotional disturbances. Chapter 14 categorizes emotional disturbances into three broad types: excesses, deficits, and disconnections. Emotional disturbances are discussed separately from the point of view of all three perspectives.

A contribution to the body of SWB knowledge comes from Christopher Peterson, who discusses well-being and personal control in chapter 15. Peterson claims that the personal control aspect is overdetermined in the happiness literature. Personal control enables well-being, but it is neither a necessary nor a sufficient condition, argues Peterson. Although our decade has been dubbed "the age of personal control", we had better be aware that such control is not equally beneficial across all cultures. Actually, the ideology of personal control may turn out to be rather damaging in some countries or among powerless classes within the rich nations. Personal control seems to apply only when individuals find themselves in settings in which persistence eventually pays off. Furthermore, the exercise of personal control can be onerous when choices are too numerous, too complex or too difficult. The relationship between subjective well-being and personal control is not necessarily a linear one.

Throughout this book, the principle of adaptation is regarded as a very powerful mechanism in the regulation of subjective well-being. Hedonic adaptation serves two main functions: it reduces the hedonic signals of constant stimuli and it amplifies the hedonic signals of change from the current stimuli level. These and other fundamental aspects of adaptation are made clear by Shane Frederick and George Loewenstein (Chapter 16). They provide examples of how adaption operates differently in various areas. For instance, rapid and considerable adaptation has been observed to imprisonment, increased wealth and disabilities such as paralysis. On the other hand, slow adaptation to the death of a loved one, and little or no adaption to noise, debilitating disease, food and sexual stimulation are also well documented. In extending the principles of adaption levels, Frederick and Loewenstein suggest that hedonic adaptation to improvements is faster than hedonic adaptation to deteriorations. Similar asymmetries are presented elsewhere in the

book, for instance in prospect theory (Kahneman in chapter 1) and the principle of positive offset and negative bias (Ito and Cacioppo in chapter 24).

In closing Part III, Susan Nolen-Hoeksema and Cheryl L. Rusting challenge some of the myths of gender differences and well-being. Although gender differences are consistently found in several moods and behaviors, some typical "truths" in this domain are perhaps not as obvious as formerly believed. For instance, the assumption that women's higher rates of internalizing disorders are tied to their hormones has not been well supported in recent literature. Women are, for example, no more likely to show depression around the time of menopause than at any other time in their lives. Moreover, although women in the USA generally reveal higher rates than men for all of the mood and anxiety disorders, no gender difference in depression was found in a study of the Old Order Amish of central Pennsylvania. Interestingly, in the Old Order Amish study, the overall prevalence of depression was much lower than in the general U.S. population. This is, in a way, thought-provoking, since we know the Amish maintain a traditional eighteenth-century agrarian lifestyle. The finding raises some intriguing questions about the relationship between development and human happiness. Noelen-Hoeksema and Rusting also draw attention to the higher risk for physical and sexual abuse among women as compared with men. Studies of rape estimate that in the USA between 14 and 25 per cent of women will be raped at some time in their lives, most often before the age of thirty. In view of the close relationship between extreme adversity and depression and anxiety (e.g., Brown and Harris, 1978), such estimates are alarming and remind us that well-being is not solely about genetic influences and personality.

Part IV threshes out the relationship between well-being and social context. Five chapters look into contextual matters, starting with a general overview by Michael Argyle. Having considered age, education, social class, income, religion and social relations among other elements of context, Argyle concludes by remarking on the low proportion of well-being variance accounted for by demographic factors. More important variables include religion and personal competence. The strongest effects are due to marriage, employment, occupational status, leisure and the "competencies" of health and social skills.

The importance of close friendship is further developed in chapter 19. In this chapter David Myers reflects upon the human need to belong,

and he discusses several varieties of social relationship and identity issues. Quoting Jean-Paul Sartre ("Hell is others"), and citing more empirically based studies, Myers illustrates that there are other aspects to social relationships than rosiness and silver linings. Actually, much stress and distress can be traced to interrelationships involving devotion. On the other hand, when they work well, nothing seems to boost happiness like social relations. Moreover, to value the social above the material seems to make for a better life. Myers also reflects upon some unfavorable consequences following from the ideology of individualism (as opposed to collectivism). Although people in individualistic countries report greater happiness, Myers is aware that there are serious shortcomings to individualism too. For instance, in so-called individualistic cultures we also find more loneliness, more divorce, more homicide, and more stress-related disease. According to this chapter, the United States is at the same time the world's most individualistic nation and the most divorce-prone. Bringing up the issue of individualism is indeed interesting and relevant for well-being research.

Employment has repeatedly been shown to be an important part of happiness, and Peter Warr devotes a chapter to this subject matter. Utilizing three dimensions of well-being in the workplace (i.e., pleasure/displeasure, anxiety/comfort and depression/enthusiasm), Warr concludes that well-being is significantly associated with better job performance, lower absenteeism, reduced probability of leaving an employer and the occurrence of more discretionary work behavior.

Adopting a yet broader scope, Bernard M. S. Van Praag and Paul Frijters incorporate an economic perspective on the good life. Chapter 21 is rather technical, explaining the basic principles behind the so-called "Leyden approach". Read as a chapter in methodology, it should be of interest to a broad spectrum of researchers, because it contributes to topics from scaling to the validity of self-reports. On the substantial side, the focus is on the measurement of individual welfare as derived from income. Contrary to former chapters in the book, which conclude that income hardly contributes to one's level of well-being at all (at least in the richer nations) these authors argue that income and welfare make a big difference. Although the chapter proclaims a distinction between the concept of welfare and the concept of well-being, the focus is clearly on the welfare side of the disparity. For example, according to Van Praag and Frijters, the optimum family size

is appropriately estimated on the basis of income levels. According to the model presented, a couple in the United States should not consider having children until they earn about 18 000 US dollars a year, and even at that level they should not have more than one child. Not before income level approaches $25 000 a year should they have a second child. And so on. For a psychologist, it is hard to believe that optimum family size depends linearly on income level, while other skills and social capabilities are not even considered. This reader, for one, is left with the impression that something important is missing under the Layden approach.

In concluding Part IV, Ed Diener and Eunkook M. Suh look into national differences in subjective well-being. Although people in wealthy nations tend to report greater SWB, chapter 22 is more concerned about the roles played by individualism, harmony, respect, innate needs, goal striving and emotional socialization in developing a fuller understanding of well-being across cultures.

The final part of the book discusses a variety of physiological and neural aspects of pleasurable and painful experiences. The pathophysiologyof unhappiness and the psychophysiology of utility are treated in separate chapters, as are neurobiology and feelings, brain stimulation rewards and the hidden core process of emotions. In chapter 23, Robert Sapolsky debates mind-body relations in a broader scope by including their larger social context. Sapolsky focuses on stress and, among other things, how the relation between stress and sense of control is moderated by social class and level of severity. Enhancing sense of control helps when stressors are of only minor severity, but it is detrimental for catastrophic stressors. For example, when one considers the benign world of a comfortably middle-class individual, a sense of control is highly predictive of success. However, the very same attributional style may be rather maladaptive in other settings, such as those of the white working class or middle-class African-Americans.

Tiffany A. Ito and John T. Cacioppo (chapter 24) discuss dimensions of experiences and evaluations, and they show how cognitive computation is performed by neural sources that are at least partly independent of those underlying discriminative appraisals. Results have shown that rare stimuli evoke a larger event-related brain potential (ERP) than frequent stimuli. This finding is the opposite of what has been established by the so-called “exposure effect” (e.g., Zajonc, 1968). However, the exposure effect relates to a dimension of evaluations, whereas Ito and

Cacioppo refer to nonevaluative information processing. A similar discrimination has been made in studies of brain lateralization. Right lateralization has been found among those performing an evaluative appraisal but not among those performing a nonevaluative one. Further elaborating on the process of evaluation, chapter 24 supports the notion that positivity and negativity relate to distinct currency functions. Of particular interest are the constructs (a) positivity offset (a weak positive motivational output at zero input), and (b) negativity bias (change in negative motivational output is larger than change in positive motivational output). Very briefly, and in the language of regression analysis, the positivity offset echoes a higher intercept-value, while the negativity bias mirrors a steeper slope. A function value and some possible evolutionary benefits for this principle are convincingly presented in the chapter.

In chapter 25, Joseph LeDoux and Jorge Armony summarize what has been learned about the neural basis of the emotion of fear and how this knowledge is relevant to understanding both fear and other emotional experiences. Peter Shizgal (chapter 26), in discussing how consciousness enables the broadcasting of information throughout the cognitive architecture, proposes that information about goal objects and consummatory acts is processed via three different channels, namely a perceptual channel, a timing channel and an evaluative channel. Once again, the reader is reminded that it is important to distinguish among the disparate kinds of cognitive operations and that the dimensionality of experiences and evaluations, far from being homogenous, should not be considered or measured according to unidimensional standards. Relatedly, in chapter 27 (Kent Berridge) the illusory sameness of emotional elements is put under further investigation. Core processes of phenomena such as liking and wanting are shown to be dissociable from each other. Liking seems to correspond to a basic sensory pleasure or hedonic activation, whereas wanting corresponds to the attribution of incentive salience to stimuli or events. In the last chapter of the book, Bartley G. Hoebel, Pedro V. Rada, Gregory P. Mark and Emmanuel Pothos review evidence showing how some particular neurotransmitters help reinforce successful connections between cognitive inputs and behavior outputs, so that an animal learns and repeats successful behavior. The role of the neural system is also discussed with regard to depression and motivation.

To summarize the 28 chapters presented in the book, I believe the major strength of *Well-Being. The Foundation of Hedonic Psychology* is its comprehensive representation of perspectives and methods of inquiry and analysis of the human experience. This field seems finally to have achieved a common point of reference. In contrast to several earlier, more fragmentary, attempts at founding a science of happiness, this book has definitely moved beyond the stage of speculation, metaphysics and wishful thinking about the positiveness of human beings.

A second strength of this text is the way it draws together different areas of psychology and its combination of different methods in the analysis of human sensations, emotions and moods. In this book the reader gets a triangulation of methods and perspectives that helps to clarify certain facts or propositions. Almost as importantly, the book raises awareness of what is not yet understood in the field. With this pioneering effort, *Well-Being* shows how modern science has begun to make real progress toward the age-old goal of understanding human happiness.

Although the careful contributions in *Well-Being* deserve praise, the field it defines needs to develop beyond the perspectives of exclusively North American or even Western scholars. Despite some "guest" contributions from outside the USA, the book limits itself to perspectives and research clearly anchored in the North American world-view.

A second criticism arises from lack of agreement on the definition of even the most significant concepts in the text. Terms such as "emotions", "mood" and "hedonism" itself, though it appears in the title, are used very differently by the various contributors to this volume. Even in the preface the reader may experience confusion in wondering how terms are defined.

Nevertheless, all in all this book achieves its ambitious goal of representing the past, present and future of a new field in psychology. Indeed, it is difficult to imagine how serious progress can now be made in well-being research unless it takes this refreshing text into account. *Well-Being* is simply a must item on the bookshelf for scholars interested in human feelings and experiences.

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