

**THE SCIENCE
OF SUBJECTIVE WELL-BEING**

The Science of Subjective Well-Being

EDITED BY
MICHAEL EID
RANDY J. LARSEN



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About the Editors

Michael Eid, DSc, is Professor of Psychology at the Free University of Berlin, Germany. Dr. Eid is currently Editor of *Methodology—European Journal of Research Methods for the Behavioral and Social Sciences* and Associate Editor of the *Journal of Positive Psychology*. His main research interests are subjective well-being, mood regulation, multimethod measurement, and longitudinal data analysis.

Randy J. Larsen, PhD, is the William R. Stuckenberg Professor of Human Values and Moral Development and Chair of the Psychology Department at Washington University in St. Louis. He conducts research on emotion, primarily in terms of differences between people, and studies such topics as subjective well-being, mood variability, jealousy, attraction, depression, and strategies for the self-management of self-esteem and emotion. Dr. Larsen is an elected member of the Society of Multivariate Experimental Psychology and is listed as one of the highly cited psychologists by the Institute for Scientific Information.

Contributors

Robert M. Biswas-Diener, MS, Department of Psychology, Portland State University, Portland, Oregon

David M. Buss, PhD, Department of Psychology, University of Texas at Austin, Austin, Texas

John T. Cacioppo, PhD, Department of Psychology, University of Chicago, Chicago, Illinois

Rebecca J. Compton, PhD, Department of Psychology, Haverford College, Haverford, Pennsylvania

Carol Diener, PhD, JD, Department of Psychology, University of Illinois at Urbana–Champaign, Champaign, Illinois

Ed Diener, PhD, Department of Psychology, University of Illinois at Urbana–Champaign, Champaign, Illinois

Marissa L. Diener, PhD, Department of Family and Consumer Studies, University of Utah, Salt Lake City, Utah

Mary Beth Diener McGavran, PhD, Department of Psychology, University of Kentucky, Lexington, Kentucky

Michael Eid, DSc, Department of Psychology, Free University of Berlin, Berlin, Germany

Robert A. Emmons, PhD, Department of Psychology, University of California at Davis, Davis, California

Barbara L. Fredrickson, PhD, Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Frank Fujita, PhD, Department of Psychology, Indiana University South Bend, South Bend, Indiana

Louise C. Hawkley, PhD, Department of Psychology, University of Chicago, Chicago, Illinois

Daniel M. Haybron, PhD, Department of Philosophy, Saint Louis University, St. Louis, Missouri

E. Scott Huebner, PhD, Department of Psychology, University of South Carolina at Columbia, Columbia, South Carolina

M. E. Hughes, PhD, Center for the Study of Aging and Human Development, Duke University Medical Center, Durham, North Carolina

Sarah E. Hill, PhD, Department of Psychology, California State University–Fullerton, Fullerton, California

Timothy A. Judge, PhD, Department of Management, University of Florida, Gainesville, Florida

Ariel Kalil, PhD, Harris School of Public Policy Studies, University of Chicago, Chicago, Illinois

Laura A. King, PhD, Department of Psychological Sciences, University of Missouri, Columbia, Missouri

Ryan Klinger, MSM, Department of Management, University of Florida, Gainesville, Florida

Jayoung Koo, MA, Department of Psychology, Yonsei University, Seoul, South Korea

Minkyung Koo, MA, Department of Psychology, University of Virginia, Charlottesville, Virginia

Randy J. Larsen, PhD, Department of Psychology, Washington University in St. Louis, St. Louis, Missouri

Richard E. Lucas, PhD, Department of Psychology, Michigan State University, East Lansing, Michigan

Darrin M. McMahon, PhD, Department of History, Florida State University, Tallahassee, Florida

David G. Myers, PhD, Department of Psychology, Hope College, Holland, Michigan

Shigehiro Oishi, PhD, Department of Psychology, University of Virginia, Charlottesville, Virginia

William Pavot, PhD, Department of Social Science, Southwest Minnesota State University, Marshall, Minnesota

Zvezdana Prizmic, PhD, Department of Psychology, Washington University in St. Louis, St. Louis, Missouri

Michael D. Robinson, PhD, Department of Psychology, North Dakota State University, Fargo, North Dakota

Ulrich Schimmack, PhD, Department of Psychology, University of Toronto at Mississauga, Mississauga, Ontario, Canada

Eunkook M. Suh, PhD, Department of Psychology, Yonsei University, Seoul, South Korea

Ronald A. Thisted, PhD, Departments of Health Studies and Statistics, University of Chicago, Chicago, Illinois

Ruut Veenhoven, PhD, Faculty of Social Science, Erasmus University of Rotterdam, Rotterdam, The Netherlands

Linda Waite, PhD, Department of Sociology, University of Chicago, Chicago, Illinois

Preface

What is happiness? Does happiness have distinct components, or is it a singular global state? How can it be measured? What causes happiness? What are the consequences of happiness? What predicts happiness? Are there national or cultural differences in happiness? How might people become happier, if they wanted to? Although answers to questions such as these are fundamental to our understanding of human functioning and flourishing, it has only been over the last 25 years that we have seen an increasing amount of empirical research in the social and behavioral sciences on the topic of happiness. This interest has crystallized in the foundation of a new discipline of psychology called “positive psychology.” The development of positive psychology has its roots in the prescient and groundbreaking work of Ed Diener, who has devoted his scientific life over the last 25 years to the kinds of questions with which we began this paragraph. His scientific work has strongly influenced psychology and made him one of the most cited living psychologists. His work has also attracted many collaborators from all over the world, and his encouraging and warmhearted approach has strongly influenced many scientific careers. It was the desire of many of his former students, postdocs, and collaborators to take the occasion of his 60th birthday, and his approaching retirement, to honor Ed and to thank him for his scientific and personal inspiration, support, and friendship.

In publishing over 200 scientific articles and several books on subjective well-being, Ed Diener has been active in defining the field and training an entire new generation of scholars in this area. Many of these scholars have gone on to

develop outstanding careers of their own in the field of positive psychology and related areas. Ed Diener and his former students and current colleagues form a large corps of researchers who are working at the cutting edge of the science of subjective well-being. Our intent in producing this book was to bring together this corps of researchers and scholars, along with others working in related disciplines, and have them each contribute a chapter to a volume that will be a definitive statement about the state of knowledge in the broad area of subjective well-being. Although the book takes its focus from topics connected to the work of Ed Diener, we have not asked the authors to address this connection in their chapters. Rather, authors were asked to contribute authoritative summaries of the key issues and current state of knowledge in regard to specific themes concerning subjective well-being.

We organized the book around five major themes. These include a broad overview of subjective well-being from multiple perspectives, including philosophy, history, sociology, and evolution. The second broad theme is measurement, which is of great importance to any discipline purporting to be a science. The third theme concerns aspects of life that are related to subjective well-being, including personality, social connectedness, social comparison, material wealth, religion, and emotion regulation. The fourth theme concerns different life domains wherein subjective well-being is manifest in important ways, including the family, institutions such as schools and the workplace, and in cultural contexts. The fifth theme focuses on interventions that may work to make people happier.

This handbook is the product of a common enterprise among many active researchers in the field of subjective well-being and happiness. It is not a *festschrift* in the usual sense but a handbook or upper-level textbook that gives an overview of the science of subjective well-being and covers contributions not only from psychology but from many other disciplines that deal with fundamental questions of subjective well-being. This book should assist readers from psychology as well as other disciplines in forming a deeper understanding of the many facets of subjective well-being—its definition and measurement, its predictors and consequences, and the ways it can be enhanced. It is suitable for self-study or as a foundation for a course or seminar on subjective well-being. We hope that readers enjoy the book and profit from the enthusiasm with which the many contributors have written their chapters, in honoring one of the leading scientists in this area of research.

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Ed Diener and the Science of Subjective Well-Being

RANDY J. LARSEN and MICHAEL EID

Although this book is not intended to be a festschrift, the opening chapter does highlight the contributions of one person: We show how the field of subjective well-being has been shaped and influenced by the efforts of Ed Diener. His impact has resulted not just from his own extensive body of empirical work, but also from his thoughtful and integrative review papers, his edited volumes, his wide-ranging collaborations with a large number of scientists around the world, his work with the popular press, and his success in training a substantial number of well-equipped PhD and postdoctoral students who have gone on to make their own contributions to the field of subjective well-being.

In tracing Ed Diener's contributions, we begin by noting that he had a successful research career before he turned to subjective well-being. In fact, prior to his work on positive characteristics, Ed Diener focused on some of the darker aspects of human nature. Before the 1980s he worked primarily on the topic of deindividuation (e.g., Diener, Fraser, Beaman, & Kelem, 1976), the notion that people in a group would sometimes behave in ways that were against the values and morals of the individuals in the group, such as is often the case with lynching, pillaging, gang rape, genocide and other autocracies committed by groups. The title of his dissertation, completed in 1975, was: "Prior destructive behavior, anonymity, and group presence as antecedents of deindividuation and aggress-

sion," so it is obvious that Ed Diener was a card-carrying member of the Dark Side before he helped define the field of positive psychology. By the time he achieved tenure at the University of Illinois, he was a leading authority on aggression and group violence, and had produced important papers on related topics such as gun ownership and crime, stealing, and television violence. He was a poster child for normative psychology at the time, which focused on negative aspects of human nature and behavior.

All this changed in the early 1980s, however. In 1980, Ed Diener took his first sabbatical. He went to the Virgin Islands for a year, with the explicit goal of changing the focus of his research career. He felt he had gone about as far as he wanted to go with the topic of deindividuation, and so went to the Virgin Islands to think long and hard about what to do next. He kept in touch with his graduate students back at Illinois, via letters, since the Internet and e-mail had not been invented yet. During that year he read through several distinct literatures, including political psychology and evolution, but reported to his graduate students that he found them unsatisfying for a number of reasons. When he finally got back to Illinois, no one knew what to expect. He called his research team together and made the announcement that he wanted to study what makes people happy. His graduate students were shocked, and most thought he had spent too much time on the beach during his sabbatical. Nevertheless, they went along with him, partly to humor him and partly because the topic was something that seemed new and interesting.

In 1980 most of the research that had been done on happiness and related constructs was survey research. Not much systematic work had been done in terms of defining and measuring this construct. And so Ed Diener and his research team set out to do some basic descriptive and measurement evaluation research, turning first to the experience sampling method to track people over time in terms of their day-to-day reports of subjective well-being. Diener also began a systematic review of the existing literature and taught a graduate seminar on subjective well-being in 1982.

Ed Diener's review of the literature culminated in 1984 when he published an article titled "Subjective Well-Being" in the *Psychological Bulletin*. This paper soon became a citation classic, and then a mega-citation classic, having been cited, as of this writing, over 1,265 times. Diener (1984) gave an overview of the field of subjective well-being that was, at the time, not the focus of psychological research. This paper was not only the cornerstone of a very fruitful and successful empirical research program of the Diener lab but also ignited many other laboratories, in the United States and around the world, to study the topic of subjective well-being. Starting in 1984 the number of papers published each year on subjective well-being doubled from the previous year, with this rapid acceleration in research output being sustained for almost a decade. Ed Diener himself has published over 200 papers since 1984, along with three books. His work has had a

strong impact on the field. His work has been cited over 10,000 times, and he has 22 papers that are citation classics (over 100 citations each) and two papers that are mega-citation classics (over 1,000 citations each; one was the *Psychological Bulletin* paper mentioned above, and the other was the publication of his Satisfaction with Life Scale, the most widely used assessment instrument in subjective well-being research).

Ed Diener's contributions to the field are manifold and lasting. He is interested in the refinement of theoretical models of subjective well-being, the development and application of measurement instruments for assessing subjective well-being, and the conditions, consequences, and correlates of subjective well-being. He is fascinated by the possibilities that cross-cultural settings are opening for researching the universal causes of happiness, but also for detecting indigenous structures and correlates of subjective well-being. Most recently, his work concerns the many positive consequences that subjective well-being has for the single individual and also for society in general. The insights he has gained from all of his work have convinced him that it is necessary for policy makers to not only consider economic criteria for evaluating the state of a society and its members, but they must also include national indicators of subjective well-being as a basis for policy decision and improving the wealth and the well-being of a society. We now review a few selected aspects of his contributions in more detail.

The Structure of Subjective Well-Being

In the mid-1980s there was an active debate about the nature of, and relationship between, positive and negative affect. Diener and Emmons (1984) wrote an influential paper demonstrating that trait measures of positive affect (PA) and negative affect (NA) were essentially uncorrelated, meaning that how much of one affect a person tended to experience had no bearing on how much of the other he or she experienced. This finding led the way for conceptualizing the independent contributions of each to the hedonic component of overall subjective well-being. Today, many researchers view this hedonic component of subjective well-being as the ratio of PA to NA, over time, in a person's life (Larsen & Prizmic, Chapter 13, this volume) and view it as an important component in the overall structure of subjective well-being.

Diener and colleagues also investigated other dimensions of affective experience in relation to subjective well-being, including the characteristic intensity and frequency of affective experience (Diener, Larsen, Levine, & Emmons, 1985). It turns out that the typical intensity with which people experience their affective states, although an interesting dimension in its own right (e.g., Larsen & Diener, 1987), has no impact on overall subjective well-being (Larsen & Diener, 1985). Rather, what turns out to be the best predictor of global subjective well-

being, in terms of affective experience, is the frequency of positive compared to negative states in a person's life over time (Larsen, Diener, & Emmons, 1985). Indeed, one of the best short measures of the affective component of subjective well-being is that developed by Fordyce (1988), which asks people to estimate the percent of time they feel happy, the percent of time they feel neutral, and the percent of time they feel unhappy over a given time period (e.g., the past year), such that it adds up to 100%. This measure correlates very highly with a wide variety of criterion measures of subjective well-being, including the long-term ratio of PA to NA assessed with experience sampling measures (Larsen et al., 1985).

Subjective well-being has another component in addition to the hedonic component; it includes a cognitive judgment about one's life, as a whole, as satisfying. Some researchers refer to this as life satisfaction, and most see it as an essential feature in the overall structure of subjective well-being. It is possible for judgments of life satisfaction to be at variance with the hedonic component (e.g., a starving artist who has a lot of negative affect and little positive affect in his or her life, but nevertheless judges his or her life to be satisfying and worthwhile). However, in most populations the life satisfaction component and the hedonic component of subjective well-being are at least moderately and sometimes highly correlated (Diener, Napa-Scollon, Oishi, Dzokoto, & Suh, 2000).

The Measurement of Subjective Well-Being

Can happiness be measured—and, if yes, in which way? An answer to this question is fundamental for an empirical science of subjective well-being. Ed Diener often tells the anecdote about his interest as a student, in the happiness of farm workers (because his parents owned a big farm) and that he wanted to conduct a study on this topic as a part of his school requirements. His professor refused this project for two reasons. First, he thought that happiness could not be measured, and second, he was convinced that farm workers could not be happy. This experience might have motivated Ed Diener's strong emphasis on measurement issues, particularly the development of measurement methods and their validation.

Because *subjective well-being* refers to affective experiences and cognitive judgments, self-report measures of subjective well-being are indispensable. With his collaborators Ed Diener developed the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), which became the standard measure of life satisfaction in the field and has been translated into many languages. Moreover, he developed measurement procedures for the affective components of subjective well-being such as the intensity and frequency of emotion (Larsen & Diener,

1985; Schimmack & Diener, 1997), and was one of the early proponents of experience sampling methods using beepers and hand-held computers to assess affective states in people's natural lives. His main messages concerning the measurement of subjective well-being are (1) that subjective well-being can be assessed by self-report with substantial reliability and validity, (2) that each measurement method has advantages and pitfalls, and (3) that the more complete assessment of subjective well-being requires a multimethod assessment tool (e.g., Diener, 1994; Diener & Eid, 2006; Scollon, Kim-Prieto, & Diener, 2003). Psychology offers many methods that can be used to assess facets of subjective well-being, such as self-reports, peer reports, observational methods, physiological methods, emotion-sensitive tasks such as the speeded recall of happy experiences, and other cognitive tasks such as word-completion and word recognition tasks (Sandvik, Diener, & Seidlitz, 1993; Lucas, Diener, & Larsen, 2003). All these different methods do not perfectly converge, because they assess different facets of subjective well-being and can be affected by specific biases, but the differences between these methods often contain important information. Thomas and Diener (1990), for example, found that people overestimate their emotional intensity and underestimate the frequency of their positive affect when recalling emotional experiences. This finding shows that there is a bias in the recall of affective experiences that only can be detected by using several methods (in situ assessment vs. recall assessment). Both methods contain important information. Although the recall might be biased, it might strongly determine how people reconstruct their lives and might guide future behavior. In contrast, experience sampling methods measure affect in situ and might provide more information about subjective well-being in real time. Multimethod assessment procedures of emotions offer many important insights into the structure and processes of subjective well-being (Larsen & Prizmic-Larsen, 2006), and Ed Diener's ideas of measurement issues have strongly influenced the development of assessment methods (Pavot, Chapter 7, this issue) as well as the development and application of sophisticated statistical tools for analyzing subjective well-being data (Eid, Chapter 8, this issue).

The Determinants of Subjective Well-Being

Diener's research indicates that there is no sole determinant of subjective well-being. Some conditions seem to be necessary for high subjective well-being (e.g., mental health, positive social relationships), but they are not, in themselves, sufficient to cause happiness. His research has identified a number of conditions that appear to be necessary for happiness, or are correlated with happiness, though no single condition or characteristic is sufficient to bring about happiness in itself.

Research out of the Diener lab supports the idea of Costa and McCrae (1980) that personality factors, especially extraversion and neuroticism, are important contributors to subjective well-being. Extraversion most likely influences subjective well-being because it is related to feeling more positive emotions and having a lower threshold for activating positive affect. On the other hand, neuroticism is strongly related to feeling more negative emotions and a lower threshold for activating negative affect. The two personality traits thus work in reciprocal fashion to influence the hedonic component of subjective well-being.

Diener and Seligman (2002) examined the characteristics of the happiest 10% of a college student sample. They compared the upper 10% of consistently very happy people to average and very unhappy people. The very happy people were highly social, with strong romantic and other close social relationships, compared to less happy groups. They were more extraverted, more agreeable, less neurotic, and lower on several Minnesota Multiphasic Personality Inventory (MMPI) psychopathology scales. The happiest subjects did not exercise significantly more, participate in religious activities significantly more, or experience more objectively defined good events. Diener and Seligman (2002) concluded that good social relations were necessary for happiness. The happiest group experienced generally positive, but not ecstatic feelings, most of the time, though they also reported occasional negative moods. This finding suggests that even very happy people have a responsive emotion system that reacts appropriately to life events.

Some researchers have implicated genetic determinants of subjective well-being based on data from twin studies. Some of these studies, conducted at the University of Minnesota and reviewed by Lykken (1999), found that monozygotic twins reared apart are more similar in happiness levels than are dizygotic twins who were reared together. The twin studies (and adoption studies as well) suggest that some portion of the variability in happiness is likely due to genetic contributions. Studies of specific gene influences suggest that genes linked with a propensity toward depression or extraversion and neuroticism might be responsible for the genetics of subjective well-being.

Some researchers, and many popular writers, have interpreted the genetic evidence to mean that happiness is determined by DNA endowment. This is not true for several reasons, as Diener has argued in several places. First, in most genetic studies, there is a fair amount of variability in happiness over time. Although the long-term or setpoint level of happiness a person reports across two or more time periods has a heritable component, people's moods and emotions and level of satisfaction—and hence their subjective well-being—moves up and down, over time, in reaction to life events. A second piece of evidence supporting environmental effects on subjective well-being also comes from the twin