

30<sup>th</sup> Anniversary  
Issue!

# The BEHAVIORAL MEASUREMENT Letter

Behavioral  
Measurement  
Database  
Services

Enriching the health and behavioral sciences by broadening instrument access

Vol. 11, No. 1  
Winter 2015

## Introduction to the December 2015 Issue of *The Behavioral Measurement Letter*

This issue of *The Behavioral Measurement Letter* celebrates the 30<sup>th</sup> anniversary of the Health and Psychosocial Instruments (HaPI) database, which first appeared in electronic form in 1985. The HaPI database is the brainchild of Dr. Evelyn Perloff, emerita professor at the University of Pittsburgh, who first conceived of the idea for a bibliographic collection of health and behavioral measurement instruments in the early 1970s. HaPI was sponsored initially by the Division of Nursing and then by the National Institute of Nursing Research (NINR). Over the past three decades, HaPI has become the most comprehensive international database of bibliographic information about behavioral measurement instruments in the fields of medicine, nursing, public health, allied health, psychology, sociology, communication, and social work.

### The Benefits of HaPI

HaPI: (a) enables *faculty and researchers* to locate instruments for research studies, journal articles, convention papers, class and laboratory exercises, workshops, grant proposals, and consulting activities; (b) offers *students* easy access to measures for papers, projects, theses, and dissertations, thereby enhancing learning and performance; (c) helps *practitioners* identify instruments to facilitate assessment of client/patient problems and outcomes at individual and organizational levels; (d) gives *librarians and information specialists* a measurement resource that cuts across disciplines and professions to meet user needs; (e) allows *authors* to track use of their measures by others.

### Information Brought to Light

Most instruments are “buried” in avalanches of published literature and are hence difficult to discover. Worse still, scientists in one field (e.g., medicine, nursing, public health) may be unfamiliar with instruments in other fields (e.g., psychology, sociology, or social work). Most users do not have access to instruments that either have been recently developed or are described in unpublished manuscripts. These measures are generally known only by those in a particular field or subspecialty. By maintaining information on instruments from these diverse sources, HaPI enables users to retrieve relevant measures about which they might otherwise be unaware. Thus, HaPI helps researchers avoid “reinventing the wheel.” HaPI places existing information on measurement instruments at users’ fingertips, no farther away than their keyboard.

### Historical Background

Now, some facts about *The Behavioral Measurement Letter*. Since the mid-1990s, Behavioral Measurement Database Services (BMDS), Inc., producer of the Health and Psychological Instruments (HaPI) database, has published and distributed *The Behavioral Measurement Letter*—a professional newsletter for researchers, practitioners, and students that focuses on issues concerning measurement in the health and psychosocial sciences. The newsletter provides a service to a large cadre of health, social, and behavioral scientists who use behavioral measurement instruments in their research, teaching, or practice.

The newsletter is a helpful resource for you to learn more about how to take advantage of the HaPI database. Back issues of the newsletter can be found on the website for BMDS ([www.bmdshapi.com](http://www.bmdshapi.com)).

The following excerpt is from the first issue of the *The Behavioral Measurement Letter* (Vol. 1, No. 1, Fall 1993), in which Dr. Evelyn Perloff describes the mission of BMDS in producing the HaPI database:

It has been over 20 years [*Editor's note*: now over 40 years] since the first words about a possible database of instruments were put to paper. It has been much longer, I assure you, when as an undergraduate chemistry major I learned to appreciate that to measure is to begin to know (even with errors of measurement). This orientation then became a foundation for how I thought and how I behaved, and since I have never found a better way to know, I continue to remain bullish about HaPI's capacity to enable us to do a better job of knowing. Indeed, I believe that HaPI has the potential for advancing our understanding of the underpinnings of health and behavior by enabling us to operationally define and quantify abstract concepts more accurately. (p. 4).

These words are as true today as they were when they were written four decades ago.

### **The Contents of This Issue of the Newsletter**

In this issue of *The Behavioral Measurement Letter*, we showcase an invited article on the "state of the science" in measuring pain, written by Dr. Robert D. Kerns, National Program Director for Pain Management for the Veterans Health Administration, and Professor of Psychiatry, of Neurology, and of Psychology in the Yale School of Medicine. As an internationally recognized expert on pain, Dr. Kerns has not only pioneered new pain assessment tools, but has also helped to develop and evaluate innovative pain treatment protocols in a variety of large-scale medical studies.

Dr. Kerns' article, entitled "Measurement of Pain: Theoretical and Empirical Foundations and Clinical Applications," provides a fascinating overview of the phenomenon of pain and its measurement in the

context of medicine. What might at first glance seem to be a simple concept is in reality far more complex and difficult both to understand and to measure. This anniversary issue of the newsletter also includes an article, by Fred B. Bryant, Ph.D., that underscores the absolute necessity of measurement in all aspects of human life. What would life be like if humans had no measurement tools? Try to imagine a day without measurement, and you will quickly realize the critical importance of measurement in our lives.

### **A Reminder**

As a reminder, most college and university libraries in the US, as well as many colleges and universities in Canada, subscribe to both the HaPI database service and the newsletter. If you have questions with regard to how you might be able to take advantage of these services, please don't hesitate to contact the staff at Behavioral Measurement Database Services (BMDS).

Please address comments and suggestions to The Editor, *The Behavioral Measurement Letter*, Behavioral Measurement Database Services, PO Box 110287, Pittsburgh, PA 15232-0787.

We also accept short manuscripts for The BML. Submit, at any time, a brief article, opinion piece, or book review on a BML-relevant topic to The Editor at the above address. Each submission will be given careful consideration for possible publication.

HaPI reading...

The Editor

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# Measurement of Pain: Theoretical and Empirical Foundations and Clinical Applications

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## **Abstract**

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.<sup>1</sup> As a subjective, covert, and personal experience, pain is most commonly assessed using “gold standard” psychometrically sound, standardized self-report measures in the human research and clinical setting. This brief article provides a broad overview of the core domains and most widely employed measures of pain. The Health and Psychosocial Instruments (HaPI) database serves as a key resource for investigators and clinicians alike.

## **Pain as a Public Health Crisis**

The experience of pain is ubiquitous. Pain can be short-lived or acute in the context of an injury, illness, or surgery. Depending on the primary contributor to acute pain and on its severity and expected duration, acute pain may be expected to resolve with little or no intervention. In some circumstances, however, analgesic medications and other therapeutic approaches may be useful to promote reasonable control of pain and optimal physical functioning. Pain that exists longer than usual given the circumstance or longer than ninety days is usually labeled as chronic pain. Chronic pain is commonly associated with a range of musculoskeletal (e.g., osteoarthritis) and neurological (e.g., peripheral neuropathy) disorders. A seminal report from the Institute of Medicine suggested that as many as 100 million Americans, approximately one-third of all adults, report chronic pain at a cost of between \$500 and \$635 billion per year.<sup>1</sup>

Although for many persons with chronic pain, pain and its potential negative impacts are well managed, for others, chronic pain may be associated with moderate to severe physical disability, including loss of work and declines in performance of everyday activ-

ities. It may also be associated with significant emotional distress and a general decline in quality of life. A large body of research documents that chronic pain is commonly comorbid with mood and anxiety disorders, post-traumatic stress disorder, and substance use disorders.<sup>2</sup> Some experts have begun to refer to the concept of “high impact chronic pain” to distinguish chronic pain that significantly affects quality of life from chronic pain that is generally well tolerated. Management of chronic pain, particularly high impact chronic pain, often requires an integrated, patient-centered, multimodal, and interdisciplinary approach to achieve optimal outcomes.<sup>3</sup> Unfortunately, pain is also all too often associated with life threatening illnesses, such as cancer, and their treatments. Management of pain at the end of life is a high priority for patients and families, and use of high potency opioid analgesics is commonly required in this setting.

Due to the high prevalence and costs of pain, as well as evidence of disparities in pain care, the Institute of Medicine labeled pain, particularly chronic pain, as a public health crisis, and called for a national transformation in pain prevention, care, research, and professional and public education. In response to this call, a National Pain Strategy is being developed.<sup>4</sup> Among its many recommendations, the National Pain Strategy encourages continued efforts to develop reliable tools for the measurement of pain for use in multiple settings, including basic laboratory, epidemiological, and translational, pre-clinical, clinical, and health services research settings, as well as in the context of health services delivery in clinical and rehabilitation settings. In the pre-clinical and clinical research setting, for example, investigators are employing functional neuroimaging to develop knowledge about the central representation of pain, including innovative applications for studies of such phenomenon as emotional and social aspects of pain.<sup>5</sup>

In the past several years, novel theories and related constructs have emerged such as pain catastrophizing<sup>6</sup> and fear avoidance<sup>7</sup> and reliable measures of these constructs have emerged that help to explain the maintenance, if not the development, of chronic pain for some individuals. In the clinical practice setting, investigators continue to search for novel, pragmatic approaches that can be used to inform an understanding of persons' idiosyncratic experiences of pain and its impact on functioning and well-being. It is within this context that the Health and Psychosocial Instruments (HaPI) database and its multiple pain-relevant measures are so important, and it is the focus of this brief review.

### **The Biopsychosocial Model**

The biopsychosocial model has emerged as the predominant framework for conceptualizing pain, chronic pain, and pain management.<sup>8</sup> First introduced by George Engel in 1978, the biopsychosocial model emphasizes the inter-relatedness of biological, psychological, and social factors in the context of disease and health. Consistent with this model, the experience of pain is conceptualized as a function of such nociception associated with structural pathology as well as a range of psychosocial factors, including mood, attention, appraisal, and social context. This model largely explains the wide variation in pain intensity, functional status, and emotional distress observed among people with similar injuries. The model also helps to illuminate the multiple dimensions of the chronic pain experience and targets for intervention, including the underlying painful medical condition and pain itself, as well as functional limitations and emotional distress.

Informed by the biopsychosocial model, the National Pain Strategy specifically calls upon clinicians "to undertake comprehensive assessments of patients with chronic pain, leading to an integrated plan of coordinated care, managed by an interdisciplinary team, when necessary."<sup>4</sup> In addition to a thorough history and physical examination, psychological and behavioral assessment of pain is also strongly indicated in many, if not most, clinical settings. A multidimensional psychological and behavioral assessment serves as a foundation for treatment planning and subsequent evaluation of treatment outcomes. Psychological and behavioral assessment may also reveal the need for adjunctive psychological treatment of preexisting or emerging psychosocial difficulties that may interfere with medical treatments of painful conditions. Psychological assess-

ment can provide information about patients' motivation and readiness to engage in treatment and their treatment preferences. Finally, psychological assessment can provide data about a patient's suitability for surgical or other invasive procedures under consideration.

### **Core Domains of Comprehensive Pain Assessment**

A broad array of approaches and standardized measures are commonly employed. Of course, a core foundational principle of pain assessment is the fact that pain is essentially a private, covert, and subjective experience. As such, many would argue that "pain is what the person says it is," and others' respect for persons' reports of pain is essential as a basis upon which to explore the biopsychosocial context of that experience. Self-report of pain and its impacts can be obtained by any of several assessment strategies such as interviews, standardized questionnaires, and diaries. These common assessment approaches can be complemented by behavioral observation, psychophysiologic assessment, and assessment of family members and significant others. The use of multiple, standardized assessment measures is encouraged to obtain comprehensive, valid, and reliable information.

It is in this context that the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials (IMMPACT) has identified core domains for pain assessment and has recommended specific measures for capturing each domain.<sup>9,10</sup> Details regarding IMMPACT and the numerous publications that have emerged from this initiative are available at [www.immpact.org](http://www.immpact.org). IMMPACT recommends explicit attention to six primary domains when assessing pain, especially chronic pain, and particularly in the context of clinical efficacy and effectiveness trials: (1) pain, (2) physical functioning, (3) emotional functioning, (4) patient ratings of improvement and satisfaction with treatment, (5) symptoms and adverse events, and (6) patient disposition. Among criteria for evaluating and selecting specific measures, IMMPACT recommended that the following parameters be considered: (1) appropriateness of the measure's content and conceptual model, (2) reliability, (3) validity, (4) responsiveness to change, (5) interpretability, (6) precision of scores, (7) respondent and administrator acceptability, (8) respondent and administrator burden and feasibility, (9) availability and equivalence of alternate forms and methods of administration (e.g., self-report versus interviewer), and (10) availability

and equivalence for different cultures and languages.

### Measures of Pain Intensity and Quality

As already emphasized, self-report is the gold standard for assessing pain severity or intensity, and quality. Three specific pain severity measures have garnered the largest proportion of attention in the literature, and each has substantial evidence supporting its psychometric properties including reliability, validity, and responsiveness to change. The numeric rating scale (NRS) is the most commonly employed measure of pain severity. Typically respondents are asked to rate their level of pain on a zero (no pain) to 10 (worst pain imaginable) scale. The instructions may vary in terms of specific parameters for the report. For example, although it is most common to inquire about pain “now,” respondents may also be asked to report on average, least and worst pain over a specified period, for example, over the past day or week. The visual analogue scale (VAS) typically involves a 100 cm scale with similar anchors to the NRS, and respondents are asked to make a mark on the line that best represents their pain intensity level. The verbal rating scale (VRS) typically uses a small list of adjectives that are intended to quantify the experience of pain severity, namely none, mild, moderate, and severe. After careful consideration of the data on each of these options, IMMPACT recommended use of the NRS in most situations.<sup>10</sup> Consistent with this recommendation, many healthcare organizations have adopted the NRS for routine screening for the presence and intensity of pain in clinical settings, often referring to “Pain as the fifth vital sign.”<sup>11</sup> IMMPACT also noted that alternative approaches to assessing pain severity may be adopted when such measures exist for specific clinical conditions. For instance, the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) is sometimes used to assess pain associated with osteoarthritis.<sup>12</sup>

Perhaps the most commonly used self-report measure of pain is the *McGill Pain Questionnaire* (MPQ), a more lengthy measure designed to assess the quality and affective component of the pain experience, not simply pain intensity.<sup>13</sup> Respondents choose pain descriptors from a list of 78 potential descriptors that fall into 20 pain categories. These descriptors assess four pain domains: sensory, affective, evaluative, and miscellaneous. Within each category, the individual descriptors reflect varying degrees of intensity and are assigned corresponding numerical values that re-

flect this difference. Respondents also highlight the location of their pain on a figure drawing and provide information about the factors that alleviate and aggravate their pain intensity. The MPQ generates three scores: (1) the Pain Rating Index, which is the sum of all words chosen in the available categories (the sum of the value of each subclass can be obtained also); (2) Number of Words Chosen, a score that reflects the number of words chosen from each of the four categories; and (3) the Present Pain Intensity, a rating of current pain on a scale from 0 (no pain) to 5 (excruciating). The MPQ has been widely used in a variety of pain-focused research and has been translated into several languages, though not all new versions of the scale have been subjected to adequate clinometric or psychometric testing. A 15-item short-version of the MPQ (SF-MPQ) is also available.<sup>14</sup> The IMMPACT committee recommends the use of the SF-MPQ as a measure of pain quality and the affective component of pain, as these aspects of the pain experience may respond differently to treatment than pain intensity.

### Psychosocial Context of Pain

Also consistent with the biopsychosocial model of pain, assessment of the psychosocial and emotional context and impact of pain has also been strongly recommended. Among the first and most widely used measure of psychosocial dimensions of the experience of chronic pain is the West Haven–Yale Multidimensional Pain Inventory (WHYMPI)<sup>15</sup>—a 52-item multi-faceted self-report instrument that employs 7-point Likert scales. The WHYMPI consists of three sections. Section one includes six scales measuring pain-related interference across several domains, including work and leisure activities as well as interpersonal relationships; perceived support from spouse or significant other; pain severity and suffering; perceived life control; and negative mood. Section 2 assesses patient perception of significant others’ responses to overt expressions of pain, classifying responses as solicitous, distracting, or negative. Section 3 measures the frequency with which the patient engages in four clusters of everyday activities including household chores, social activities, outdoor work, and activities away from home. Turk and colleagues have proposed an empirically derived taxonomy of the WHYMPI that includes three reliable profiles of patients with persistent pain labeled as Dysfunctional, Interpersonally Distressed, and Adaptive Copers, and these investigators and several other groups have replicated these findings in numerous samples of

patients with various pain conditions.<sup>15</sup> The measure has been used in numerous empirical studies, including clinical trials of psychological and pharmacological interventions, studies of the psychosocial impact of pain, and studies examining the role of psychosocial factors as contributors to the development and maintenance of persistent pain. The IMMPACT Group recommended the use of the Interference Scale of the WHYMPI for use as an outcome measure in pain clinical trials.<sup>6</sup>

Numerous additional standardized approaches for the assessment of key dimensions of the chronic pain experience have also been developed and are commonly employed in clinical and research settings. As just one example, the *Brief Pain Inventory* (BPI) was originally developed to measure pain intensity and interference in patients with cancer pain, but it has been widely used to assess non-cancer pain.<sup>17,18</sup> A short-form of the BPI containing 15 items is also available. Demonstrations of its reliability and validity and its availability in multiple languages have contributed to it being recommended by IMMPACT for use as a measure of physical functioning in pain clinical trials.<sup>6</sup> The PEG-3 is an ultra-brief version of the BPI consisting of three items: (P) Pain Intensity, (E) Enjoyment of Life, and (G) General Activity. Development studies demonstrated reliability and validity for the PEG-3 comparable to that of the longer BPI.<sup>19</sup> The Roland Morris Disability Questionnaire, consisting of 24 items, has been developed specifically for use with patients with chronic low back pain and is also recommended by IMMPACT as a measure of physical functioning.<sup>20</sup>

Quite recently the National Institutes of Health (NIH) *Patient-Reported Outcomes Measurement Information System* (PROMIS) has been developed and is being promoted as an enhancement over existing measures. PROMIS is a standardized item bank developed by a cooperative group for the purpose of developing psychometrically sound standardized measures to assess patient-reported outcomes. These measures provide information in the domains of physical, mental, and social health, across a variety of medical illnesses. Measures for pain currently available in the PROMIS assessment center ([www.assessmentcenter.net](http://www.assessmentcenter.net)) include Pain–Interference and Pain–Behaviors.<sup>21,22</sup> Both measures demonstrated reliability and validity in psychometric evaluation, were related to other measures of pain-related outcomes, and discriminated among groups of patients with differing self-reported health, numbers of chronic

conditions, and numbers of disabling conditions. Available studies suggest that these scales provide comprehensive, sophisticated, and psychometrically sound measures for pain-related patient-reported outcomes.

Assessment of the impact of pain on emotional functioning as well as on mental health is also a particularly important consideration, particularly when assessing persons with chronic pain. The rationale for this recommendation includes the high prevalence of emotional distress and comorbid mental health conditions among persons with chronic pain conditions, the negative effects of emotional distress on pain and pain-related disability, the inflated health care costs associated with emotional distress and mental health comorbidities among patients with chronic pain, and the influence of emotional distress and mental health problems on pain treatment participation and outcomes. Key dimensions of emotional distress include depressed mood, anxiety, and anger, and symptoms of mood and anxiety disorders, post-traumatic stress disorder, and alcohol and substance use disorders. For the most part, measurement of these factors involves the use of any of several relevant standardized measures such as the Beck Depression Inventory,<sup>23</sup> although there are also a growing number of pain-specific measures that can be considered such as the Pain Anxiety Symptom Scale.<sup>24</sup>

Beyond these core domains, theory and a burgeoning empirical literature have contributed to the emergence of multiple important constructs and measures of these constructs that are increasingly employed in clinical settings. One of the most important of these emerging constructs is pain coping, which has led to the development of such measures as the Survey of Pain Attitudes,<sup>25</sup> the Chronic Pain Coping Inventory,<sup>26</sup> and the Pain Catastrophizing Scale.<sup>27</sup> Informed by Prochaska's Transtheoretical Model of Behavior Change, the Pain Stages of Change Questionnaire has been developed as a measure of persons' readiness to engage in a self-management approach to chronic pain.<sup>28</sup>

### **Challenges and Opportunities**

Despite the maturity of the field of pain measurement, numerous challenges remain. There is considerable interest and perceived need to develop ultra-brief measures of key constructs for use in epidemiological research and busy clinical practice settings, especially primary care. Development of novel, reliable, and feasible measures of physical function-

ing is encouraged, including the use of portable algometry for measuring the minimal amount of pressure that produces pain during activity. Innovative use of technologies such as mobile applications for smartphones and other phone and Internet based approaches also represent exciting new opportunities.<sup>29</sup>

In closing, it is widely appreciated that the foundation of good pain management is the availability of a comprehensive assessment that is theoretically informed, valid, reliable, and patient-centered. The Health and Psychosocial Instruments (HaPI) database is a state-of-the-science resource for the investigator and clinician in search of optimal tools for research and clinical practice. Dr. Evelyn Perloff, the originator of the HaPI database, and her colleagues are to be commended for their extraordinary efforts to develop this invaluable resource and to promote its availability in the service of improving the care of persons with pain.

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# The Necessity of Measurement in Everyday Life

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Modern society simply could not exist without measurement. Twenty-first century civilization is inconceivable without the indispensable measurement tools on which everyday life depends. Time, size, distance, speed, direction, weight, volume, temperature, pressure, force, sound, light, energy—these are among the physical properties for which humans have developed accurate measures, without which we could not live our normal daily lives.

Measurement permeates every aspect of human life. Yet, ironically, we tend to take measurement for granted, and we fail to appreciate just how much we need and depend on our measurement tools. We overlook the importance of measurement because we are surrounded by it and have grown accustomed to it. It is only when our measurement tools malfunction or are unavailable that we begin to appreciate just how important they are. Truly, we only know what we've got when it's gone.

However, if we were to try to live without measurement for even a single day, then we would quickly see just how vital measurement is in our everyday lives. A normal day would be impossible without measurement.

Try to imagine living a day without measurement.

*As you go to bed*, you begin to wonder how and when you will wake up the next morning to go to work. Without measurement, there would be no clocks or alarms to awaken you at a selected time. But on the positive side, if there were no measures of time, then no one could ever know whether or not you were late for work. The very notion of being on time would vanish without measurement.

*After you wake up*, you could not use an electric stove, oven, or microwave to make breakfast or coffee, because these devices rely on measurements of temperature or time to heat food and beverages. Nor could you use a modern refrigerator, since refrigeration requires measurement to keep food and beverages at a preset temperature.

*In commuting to work*, you could not drive because modern automobiles use onboard computers, which

rely on measurement to control the ignition system, automatic transmission, brakes, engine temperature, throttle position, and mix of fuel and oxygen. Nor could you know how much fuel, oil, or transmission fluid your vehicle had, for without measurement there would be no fuel gauge or dip stick to check these fluid levels.

Even if you could drive a car, you could never know how fast you were going because you would not have a speedometer. But, on the plus side, the police would never be able to pull you over for speeding because, without measurement, there would be no radar to enforce the speed limit. Indeed, there could be no speed limits without measurement.

*At work*, you could not use a computer, since computers require measurement in order to operate. Nor could you use a land-line telephone, cell phone, or fax machine to communicate with others, because these devices rely on measurement to operate.

Forget about flying, or taking a bus, train, or ocean liner on an intercontinental business trip; and forget about traveling overseas. Long-distance transportation and navigation would be impossible without the measurement of distance, speed, time, direction, and fuel.

And with respect to business and commerce, forget about keeping track of financial revenues and expenses, profits and losses, or savings and costs. Without measurement, people could not know how much money they have or how much money they are spending. On the positive side, however, without measurement you would never have to pay income taxes again, because the IRS could not operate without measurement.

In a world in which no measurement tools exist, there could be no modern medicine, healthcare, surgery, pharmacology, radiology, dentistry, optometry, or audiology. And in a measureless world, there could be no science. For, as psychologist James Cattell noted in 1893, "The history of measurement is the history of science."

Numerous observers have emphasized the necessity of measurement in advancing human knowledge and understanding. Consider the following quotations:

If someone separated the art of counting and measuring and weighing from all the other arts, what was left of each (of the others) would be, so to speak, insignificant.

— Plato (4<sup>th</sup> Century B.C.)

By measurement to knowledge.

— Heike Kamerlingh Onnes (1882), 1913 Physics Nobel Laureate

In physical science the first essential step in the direction of learning any subject is to find principles of numerical reckoning and practicable methods for measuring some quality connected with it. I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science, whatever the matter may be... the grandest discoveries of science have been but the rewards of accurate measurement and patient long-continued labour in the minute sifting of numerical results.

— Lord Kelvin (1883)

Fortunately, we live in a world that allows us to make measurements. Measurement tools make our lives better and safer, and they enhance the quality and quantity of life. Arguably, the ability to measure physical properties accurately has tremendous survival value that gives humans an adaptive, evolu-

tionary advantage honed through many years of natural selection. Thus, evolution may well have selected for measurement capabilities in human beings.

The mission of Behavioral Measurement Database Services, the producer of the HaPI database, is to provide comprehensive, accurate information about measurement tools in a variety of disciplines and professions, including medicine, nursing, public health, psychology, social work, communication, sociology, and organizational behavior/human resources. Reflecting the critical importance of measurement in research and practice, the Health and Psychosocial Instruments (HaPI) database is designed to improve access to measurement instruments in the health and psychosocial sciences worldwide. And improving access to measurement tools will improve the quality and validity of science.

Never lose sight of the vital importance of measurement, without which modern life could not exist. For, without measurement, we would truly be lost.

*Dr. Fred B. Bryant is Professor of Psychology at Loyola University Chicago, where he has taught courses in social psychology, statistics, and psychometrics and conducted research for the past 30 years. He has roughly 200 professional publications in the fields of social psychology and personality. His current research focuses primarily on the dynamics of savoring—that is, the process of attending to, appreciating, and regulating positive experience.*

### Measurement Assistance

As always, we are available to answer your questions on behavioral measurement instrumentation.

We can help locate instruments of special interest for your research, practice, teaching, assessment, evaluation, and, of course, dissertations, theses, and projects.

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