

# CHAPTER 1

## Introductory Principles of Social Work Research

Bruce A. Thyer

*The scientific approach to unsolved problems is the only one which contains any hope of learning to deal with the unknown.*

—Bertha Capen Reynolds (1942, p. 20)



An emphasis on the value of scientific research has *always* characterized professional social work education and practice. Indeed, this emphasis is one of the hallmarks that distinguishes genuinely “professional” services from other forms of private/public philanthropy and charity and the provision of social care motivated by religious, familial, altruistic, or philosophical reasons. In the history of social work in North America and Great Britain, as well as in other European nations, the system of poor laws and other relatively unsystematic attempts to care for the destitute gave rise during the latter part of the 19th century to an orientation labeled *scientific philanthropy*. Coincident with the emergence of “friendly visiting,” settlement houses, formalized academic training, and other precursors to the professionalization of social work, the development of charitable services guided by a scientific orientation has evolved to the present day.

Social work historian John Graham provides a good case study on a Toronto charity home for women called The Haven, established in 1878 by religious elites, that gradually made the transition to a more secularly oriented and professional service. Graham (1992) describes the completion of this transition in 1927 as follows:

Professional social work, therefore, had been firmly installed at The Haven, and the last vestiges of the benevolent philanthropy of the nineteenth century were abandoned. A growing sense of professional identity moreover demanded a strict delineation between the social worker and the social agency volunteer. Differentiating the former from the latter was a *scientific knowledge base and specialized skills* which were the social worker’s alone. (p. 304, italics added)

Such a transition can be said to characterize the majority of social work programs across North America by the early part of the 20th century. Currently, one widely used definition of social work can be found in *The Social Work Dictionary* published by the National Association of Social Workers—“the *applied science* of helping people achieve an effective

level of psychosocial function and effecting societal changes to enhance the well-being of all people” (Barker, 2003, p. 408, italics added). Many states further define the practice of clinical social work, and Florida’s definition provides a representative example of the interconnectedness of social work and science: “The ‘practice of clinical social work’ is defined as the use of *scientific* and applied knowledge, theories and methods for the purposes of describing, preventing, evaluating, and treating, individual, couple, family or group behavior” (Florida Department of Health, 2008, italics added). These definitions illustrate the close linkage between the practice of social work and the world of scientific inquiry.

Where do we social workers come from organizationally? We have many roots, but a central one was the establishment in 1865 of the American Social Science Association (ASSA), a generalist organization influenced by French sociologist Auguste Comte’s then novel philosophy of science labeled *positivism*, which called for the objective study of human society and behavior using the same tools of scientific inquiry that were proving so successful in the biological and physical sciences. From the ASSA sprouted numerous offshoots, some of which thrive to this day, although the parent group crumbled in 1909. From the ASSA, in 1879, emerged the Conference of Charities, which in 1884 evolved into the National Conference of Charities and Correction (NCCC), described as “a forum for the communication of the ideas and values connected with scientific charity” (Germain, 1970, p. 9). In turn, the NCCC was renamed the National Conference on Social Work in 1917. This label lasted until 1957, when it was altered to the National Conference on Social Welfare, which gradually expired during the 1980s.

More recently, in 1994, a small group of social workers led by Janet B. W. Williams established a new scientifically oriented social work membership organization known as the Society for Social Work and Research (SSWR). All social workers with an interest in scientific research in social work are eligible to join. The SSWR quickly grew from 271 members in 1995 to more than 1,300 in 2009, and the organization has an active newsletter and program of annual international conferences. The first professional SSWR conference was held in 1995 in Washington, D.C., and has been followed annually since that time with very successful and high-quality conferences (see [www.sswr.org](http://www.sswr.org)). The SSWR conferences offer a host of competitively reviewed symposia, papers, and posters; plenary addresses by prominent social work researchers; and an awards program that recognizes outstanding examples of recently published social work research. Because of its superb organization and the top quality of its presentations, the SSWR conference has rapidly become the preferred venue for social work researchers to present their research findings. Moreover, it has become the conference of choice for schools of social work to seek interviews with potential new faculty and for potential new faculty to seek academic positions. In 1999, the SSWR began providing its members a subscription to the bimonthly peer-reviewed journal *Research on Social Work Practice*, an independent periodical established in 1991. This growth of the SSWR augurs well for the continuing voice of science within mainstream social work.

A related but independent development was the establishment of the Institute for the Advancement of Social Work Research (IASWR) in 1993. The mission of the IASWR is to create infrastructure for social work research, to lead advocacy efforts to fund social work research, to help stakeholders view social work research as valuable, to provide training and professional development programs for social work researchers, to persuade social workers to undertake careers in research, to provide a free Web-based research-focused newsletter, and to promote disciplinary and interdisciplinary research collaboration. Five national professional social work organizations contributed to the development of the IASWR and are represented on its governing board. Its original purpose of advocating for the establishment of a federally funded National Center for Social Work Research failed in the face of fiscal austerity, but the IASWR has expanded its remit as described above (see <http://www.iaswresearch.org/>).

Another organizational resource for social work research is the Social Work Topical Interest Group (TIG) found within the American Evaluation Association (AEA). The AEA has about 5,000 members, and several hundred of these comprise the social work TIG. The AEA holds an annual conference as well as regional ones, has an active journals program, and provides training and consultation services, and its Web site has a wealth of useful resources (e.g., locating measurement instruments, how to locate an evaluator; see <http://www.eval.org/aboutus/organization/aboutus.asp>).

The National Association of Social Workers is the largest professional social work group in the world, with about 150,000 members. Almost all are M.S.W. and B.S.W.-level trained professionals, and the organization primarily serves the needs of its practitioner member base, not those of social work researchers. The NASW does not host an annual conference but does have one research journal, *Social Work Research*. A new initiative is a social work research Web page (see [www.socialworkers.org/research/](http://www.socialworkers.org/research/)), cosponsored with the IASWR, which is itself ostensibly independent but is actually housed within the NASW offices in Washington, D.C.

Social work researchers also find welcoming organizational support from various disciplinary (e.g., American Psychological Association, American Sociological Association, Association for Behavior Analysis) and interdisciplinary (e.g., American Public Health Association, Association for Advancement of Behavioral and Cognitive Therapies, American Orthopsychiatric Association, the Gerontological Society of America) groups. These groups typically have thriving annual conferences, a well-established journals program, and training opportunities social workers can take advantage of. Thus, both budding and experienced social workers have ample opportunities to network with research-oriented colleagues both within and outside of the discipline.

## Scientific Perspectives on Practice

The role of scientific research in social welfare can be seen through many early writings, including an article titled “Scientific Charity,” presented at the 1889 meeting of the NCCC (cited in Germain, 1970, p. 8), and one titled “A Scientific Basis for Charity” (Wayland, 1894), which appeared in the influential journal *The Charities Review*. Such perspectives culminated in the publication of Richmond’s (1917) *Social Diagnosis*, an influential text that wholeheartedly extolled the virtues of positivist science. Indeed, in 1921, Richmond received an honorary M.A. degree from Smith College for “establishing the scientific basis of a new profession” (cited in Germain, 1970, p. 12).

The possible examples of conference talks, journal articles, chapters, and books illustrating the central reliance on scientific research as a guiding force within early social work are too numerous to mention further here. Germain (1970) remains one of the very best reviews of this “ancient” history of our profession. More recent is the history of the Social Work Research Group (SWRG), a short-lived professional membership organization established in 1949 that became one of the original seven constituents of the National Association of Social Workers (NASW) in 1955, transmogrifying itself into the NASW’s Research Section. In 1963, this became the NASW’s Council on Social Work Research, where it gradually faded from view by the mid-1960s as the NASW allowed the research mission established in its bylaws to largely lapse. Graham, Al-Krenawi, and Bradshaw (2000) have prepared an excellent historical study of the rise and demise of the SWRG.

Coincident with these organizational and policy developments related to the integration of science and social work during the past quarter century have been three related perspectives on practice. The first is known as *empirical clinical practice* (ECP), the second

is called *empirically supported treatments* (ESTs), and the third is labeled *evidence-based practice* (EBP). These are reviewed briefly in turn.

## Empirical Clinical Practice

*Empirical clinical practice* was the name of a book authored by social workers Siri Jayaratne and Rona Levy (1979), who describe the characteristics of the ECP model they espouse: “Empirical practice is conducted by clinicians who strive to measure and demonstrate the effect of their clinical practice by adapting traditional experimental research techniques to clinical practice” (p. xiii). The authors focus on teaching social workers the use of relatively simple research methods called single-system research designs to empirically evaluate the outcomes of their work. They believe that “clinical practice that can empirically demonstrate its effect provides the basis for the best service to the client” (p. xiv). They contended that ECP can be adopted by practitioners using virtually any theoretical model of practice so long as it is possible to measure changes in the client, relate these changes (provisionally) to social work intervention, and then base future services on these observations. The authors advocate that social workers should rely on previous research to help guide their choices of interventions that they offer clients. In their words, “The clinician would first be interested in using an intervention strategy that has been successful in the past. . . . When established techniques are available, they should be used, but they should be based on objective evaluation rather than subjective feeling” (p. 7). ECP involves the careful and repeated measure of client functioning, using reliable and valid measures repeated over time, combined with selected treatments based on the best available scientific evidence. Their entire book is devoted to describing how to do these activities. A similar social work text by Wodarski (1981), titled *The Role of Research in Clinical Practice*, advocated for much the same thing—a preference to make use of psychosocial treatments that scientific research had really demonstrated to be of benefit to clients, measuring client functioning in reliable and valid ways, and empirically evaluating outcomes with individual clients and larger groups.

The banner of ECP was picked up by a number of subsequent social workers, and a rather large (and not uncontroversial) literature has grown around these notions (e.g., Corcoran, 1985; Ivanoff, Blythe, & Briar, 1987; Ivanoff, Robinson, & Blythe, 1987; G. MacDonald, 1994; Thyer, 1996). The influence of ECP has not been inconsiderable. For example, in 1982, just 3 years following the publication of *Empirical Clinical Practice* (Jayaratne & Levy, 1979), the curriculum policy statement of the Council on Social Work Education (CSWE, 1982) included a new mandate that research courses must now teach “designs for the systematic evaluation of the student’s own practice . . . [and should] prepare them systematically to evaluate their own practice and contribute to the generation of knowledge for practice” (pp. 10–11). Similar standards still can be found in the current CSWE guidelines. Insisting that individual practitioners conduct systematic outcome evaluations of their own services was a remarkable professional standard, one that has not yet been emulated by educational and practice guidelines within clinical psychology or psychiatry in the present day. Reid (1994) provides a nice overview of the rise, influence, and dissemination of the ECP movement.

## Empirically Supported Treatments

Subsequent to the ECP movement within social work, a related initiative developed within clinical psychology called *empirically validated treatments*. During the mid-1990s, the president of Section III (Society for a Science of Clinical Psychology) of Division 12

(Clinical Psychology) of the American Psychological Association convened a Task Force on Promotion and Dissemination of Psychological Procedures, a group charged with two functions: (a) develop a scientifically defensible set of criteria that can be used to determine whether a given psychological technique can be called *empirically validated* and (b) conduct comprehensive reviews of the research literature, apply these criteria, and come up with, in effect, lists of psychological procedures that fulfill these criteria and, therefore, can be considered, in a scientific sense, empirically validated.

The evidentiary standards ultimately decided on by the task force were actually rather modest, consisting of the following criteria:

- I. At least two good between-group design experiments demonstrating efficacy in one or more of the following ways:
  - A. Superior to pill or psychological placebo or to another treatment
  - B. Equivalent to an already established treatment in experiments with adequate statistical power
- II. A large series of single-case design experiments ( $N > 9$ ) demonstrating efficacy that must have done the following:
  - A. Used good experimental designs
  - B. Compared the intervention to another treatment (as in I.A.)

Among the further criteria are that the psychological techniques must be based on well-proceduralized treatment manuals, that the characteristics of the client samples are clearly defined, and that the positive effects must have been demonstrated by at least two different investigators or investigatory teams. A psychological treatment meeting the preceding criteria could be said to be *well established*. A somewhat less stringent set of criteria could be followed to potentially label a treatment as *probably efficacious* (Chambless et al., 1996).

With the criteria in place, the task force busily got to work in seeing which psychological treatments could be labeled *empirically validated* and *probably efficacious*, and reports soon began appearing indicating empirically validated interventions for a wide array of psychosocial disorders such as depression, panic disorder, pain, and schizophrenia. As with the ECP movement within social work, the task force within psychology did not escape controversy. For one thing, the task force recognized that labeling a treatment as *empirically validated* seemed to close the discussion off, implying perhaps a stronger level of research evidence than was justified. Subsequent reports of the task force used the more tempered language of *empirically supported treatments* (ESTs). Entire issues of leading professional journals (i.e., a 1996 issue of *Clinical Psychology: Science and Practice*, a 1998 issue of the *Journal of Consulting and Clinical Psychology*, a 1998 issue of *Psychotherapy Research*) were devoted to the topic, as were considerable independent literatures (e.g., Sanderson & Woody, 1995). The influence of the EST movement also has been strong, and the work of the Division 12 task force was commented on extremely favorably in *Mental Health: A Report of the Surgeon General* (Hatcher, 2000). The volume titled *A Guide to Treatments That Work* (Nathan & Gorman, 2007), now in its third edition, is an exemplary resource for social workers seeking relatively current information about empirically supported treatments for a wide variety of mental health problems. Division 12, Section III (The Society for a Science of Clinical Psychology) continues its work in defining the criteria and language used to describe empirically supported treatments and maintains a Web site providing current information on this influential initiative (see <http://www.psychology.sunysb.edu/eklonsky-/division12/index.html>).

## Evidence-Based Practice

Coincident with the EST initiatives in clinical psychology have been related activities in medicine labeled *evidence-based practice*, defined as “the conscientious, explicit, and judicious use of the current best evidence in making decisions about the care of individual patients” (Sackett, Richardson, Rosenberg, & Haynes, 1997, p. 2). On its face, EBP would not seem to be a radical notion, and indeed, most readers would assume that such a standard already was in place in most of the health professions. Sadly, to a great extent, this is not the case, although a small but influential group of health care providers is attempting to make it so. EBP and EST actually are much more sophisticated variants of the earlier ECP model of social work, but the spirit and intent of all three movements—ECP (developed within social work), EST (developed within psychology), and EBP (developed within medicine)—are the same. EBP is gradually supplanting the ECP and EST initiatives within social work and psychology. The current president of the Society for the Science of Clinical Psychology (a section of Division 12 of the American Psychological Association) published an editorial titled “Evidence-Based Psychotherapy: A Graduate Course Proposal” (Persons, 1999), and some social workers have begun using the EBP language, most notably Gambrill (1999) with her thoughtful article titled “Evidence-Based Practice: An Alternative to Authority-Based Practice,” which introduced EBP to the social work literature. The past decade has seen the publication of enough social work books on the EBP topic to fill a bookshelf. The melding of these *disciplinary* perspectives into an *interdisciplinary* human services movement generically called *evidence-based practice* seems likely. Consider Persons’s (1999) description of EBP:

The evidence-based practitioner:

- Provides informed consent for treatment
- Relies on the efficacy data (especially from RCTs [randomized clinical trials]) when recommending and selecting and carrying out treatments
- Uses the empirical literature to guide decision-making
- Uses a systematic, hypothesis-testing approach to the treatment of each case:
  - Begins with careful assessment
  - Sets clear and measurable goals
  - Develops and individualized formulation and a treatment plan based on the formulation
  - Monitors progress toward the goals frequently and modifies or ends treatment as needed (p. 2)

Well, perhaps Jayaratne and Levy (1979) were simply two decades ahead of their time. An issue of the *NASW News* contained an article on the Surgeon General’s Report on Mental Health and noted, “A challenge in the near term is to speed transfer of new *evidence-based treatments* and prevention interventions into diverse service delivery settings and systems” (O’Neill, 2000, p. 6, italics added). The Surgeon General’s report itself states clearly,

Responding to the calls of managed mental health and behavioral health care systems for evidence-based interventions will have a much needed and discernable impact on practice. . . . It is essential to expand the supply of effective, evidence-based services throughout the nation. (Hatcher, 2000, chap. 8, p. 453)

EBP requires knowing what helps social work clients and what does not help them. It requires being able to distinguish between unverified *opinions* about psychosocial

interventions and *facts* about their effectiveness. And separating facts from fictions is what science is pretty good at doing. Not perfectly, and not without false starts, but the publicly verifiable and potentially testable conclusions of scientific research render this form of knowledge building an inherently self-correcting one (in the long run), a considerable advantage over other “ways of knowing.”

EBP differs from its precursor initiatives in that it does *not* tell social workers what interventions should be provided to clients. It does *not* list so-called best practices, create practice guidelines, or develop lists of supposedly empirically based treatments. Nor does it unduly privilege certain forms of evidence above all others. Each of the above three sentences represents common misconceptions of EBP. EBP is actually a process of inquiry offered to practitioners, described for physicians in Straus, Richardson, Galsziou, and Haynes (2005), but readily adaptable to providers in all of the human service professions. These steps are as follows (from Straus et al., 2005, pp. 3–4):

- Step 1:* converting the need for information (about prevention, diagnosis, prognosis, therapy, causation, etc.) into an answerable question.
- Step 2:* tracking down the best evidence with which to answer that question.
- Step 3:* critically appraising that evidence for its validity (closeness to the truth), impact (size of the effect), and applicability (usefulness in our clinical practice).
- Step 4:* integrating the critical appraisal with our clinical expertise and with our patient’s unique biology, values, and circumstances.
- Step 5:* Evaluating our effectiveness and efficiency in executing steps 1–4 and seeking ways to improve them both for next time.

Each chapter in Straus et al. (2005) addresses one of these steps, and they have been adapted for use by social workers in an excellent series of entries appearing in *The Social Worker’s Desk Reference* (see Roberts, 2009, pp. 1115–1182). EBP states that social workers need to be familiar with the best available evidence addressing the questions related to client services and to their particular practice situation and to integrate their appraisal of this information into an assessment of their own skills, the client’s preferences, relevant professional and personal values and ethical standards, cost, feasibility, and resources. *All* of these factors are relevant, not just what the research evidence indicates. And by best evidence, what is meant is not so-called gold-standard studies such as randomized controlled trials or meta-analyses (see later chapters on these topics in this book) but simply the best available relevant evidence. If there are no studies of superlative quality, then you locate and assess those of lesser quality. Lots of evidence can go into the mix, including quasi-experimental studies, single-subject studies, correlational studies, descriptive work, epidemiological evidence, qualitative investigations, case histories, theory, and informed clinical opinion. There is *always* evidence for a social worker to consult, even if it is not evidence of the highest quality. As with ECP, EBP also encourages practitioners to evaluate the outcomes of their work with individual clients using a research methodology called single-subject designs.

Another option is for social workers to consult *systematic reviews* (SRs) of the research evidence related to various answerable questions involving assessment and interventive methods. The two groups most responsible for preparing high-quality and independent SRs are called the Cochrane Collaboration (see [www.cochrane.org](http://www.cochrane.org)), focusing on issues related to health care, and the Campbell Collaboration (see [www.campbellcollaboration.org](http://www.campbellcollaboration.org)), focusing on social welfare, education, and criminal justice. SRs are prepared by

qualified research teams who obtain articles and reports from all over the world dealing with a specific issue. These reports are minutely analyzed and critiqued and the collected information summarized in a readable format, with a take-away message something like *Treatment X is well-supported as an effective treatment for clients with Problem Y; The available evidence indicates that Treatment X is ineffective in helping clients with Problem Y; Clients with Problem Y who receive Treatment X demonstrated impaired outcomes, compared to clients who receive no treatment.* You can see how this information would be of immense value to social workers. Here is a sampling of SRs currently available on the Cochrane database that is of relevance to social workers:

- Behavioral and cognitive-behavioral therapy for obsessive-compulsive disorder in children and adolescents
- Family intervention for bipolar disorder
- Family therapy for depression
- Psychological debriefing for preventing posttraumatic stress disorder
- Psychotherapy for bulimia nervosa and bingeing
- Short-term psychodynamic psychotherapy for common mental disorders

And here are some found on the Campbell Collaboration Web site:

- Cognitive-behavioral therapy for men who physically abuse their partner
- Cognitive-behavioral intervention for children who have been sexually abused
- Interventions intended to reduce pregnancy-related outcomes among adolescents
- School-based educational programs for the prevention of childhood sexual abuse
- Work programs for welfare recipients

These systematic reviews represent the highest quality and up-to-date critical appraisals of the existing research literature addressing particular psychosocial and health problems experienced by social work clients. They are a wonderful resource for practitioners seeking such information and are integral to the conduct of evidence-based practice.

To summarize, ECP suggested that social work treatment should be chosen based on support via randomized controlled studies and that social workers need to evaluate the outcomes of their practice with clients using single-system research designs. The EST initiative came up with a list of evidentiary criteria needed to label a given treatment as “empirically supported.” Once these criteria were in hand, lists of psychosocial interventions meeting these standards were published. EBP provides more of a process to guide clinical and practice decision making, which explicitly embraces evidence from many sources (albeit urging one to pay particular attention to evidence of the highest quality) and explicitly includes nonscientific considerations such as client preferences and values into this decision-making process. In many ways, EBP is a more sophisticated and mature conceptualization of the conduct of practice than ECP and EST, and these latter two initiatives largely have been subsumed by EBP.

## On Terms

The preceding brief overview helps to bring us to the present, wherein social work is attempting to really implement our original aspirations pertaining to being based on a foundation of scientific research. As in most intellectual undertakings, it always is helpful



to begin by defining one's terms. Accordingly, the following language is being used to help set the stage for subsequent chapters in this handbook.

*Research* refers to “systematic procedures used in seeking facts or principles” (Barker, 2003, p. 398), and the phrase *scientific method* means

a set of rigorous procedures used in social and physical research to obtain and interpret facts. The procedures include defining the problem, operationally stating in advance the method for measuring the problem, defining in advance the criteria to be used to reject hypotheses, using measuring instruments that have *validity* and *reliability*, observing and measuring all the cases or a representative *sample* of those cases, presenting for public scrutiny the findings and the methods used in accumulating them in such detail as to permit *replication*, and limiting any conclusions to those elements that are supported by the findings. (Barker, 2003, p. 383)

The term *empirical* is often loosely bandied about in the social work literature, and in some interpretations, it seems synonymous with the assertion, “If I can see it, then it is real.” Well, evidence obtained via the senses certainly is a part (and a very important one) of the meaning of the term, but simply having a single person sense (e.g., see, hear, smell) something does not really suffice for something to be considered a piece of scientific data. For research purposes, data “should also be obtained through *systematic* observations capable of being *replicated* (i.e., verified) by other individuals and subject to some evidentiary standards” (Thyer & Wodarski, 1998, p. 2). Perhaps it is true that your neighbor was removed from his bed by aliens one night and subjected to invasive medical procedures prior to being returned home. But unless others see the abduction occur, or other evidence is available (e.g., the aliens left unusual objects inside his body), to label this experience of his as *empirical* is true only in the loosest sense of the term. Certainly, one-time private events leaving no detectable evidence behind, or purely subjective experiences, are difficult phenomena on which to conduct scientific research. This is not to say that such experiences are false or otherwise unimportant, only that they rarely are the subject matter of science.

## Some Philosophical Assumptions

Professional social work's dual origins in the worlds of religion and of science require contemporary practice and research to rest a bit uneasily on a Procrustean bed of philosophical assumptions. The philosophical positions described in what follows, while for the most part being simply seen as common sense, cannot in any way be said to be *proved* or demonstrated to be valid. Each is vulnerable to attack and, indeed, to apparent refutation, but these views nevertheless have stood the test of both time and practice sufficiently well for us to have some degree of confidence in them. First, I describe principles that most contemporary researchers accept as philosophically axiomatic (i.e., self-evident truths), followed by some selected philosophical positions that are rejected by most scientists today.

### Some Accepted Principles

*Realism*: the point of view that the world has an independence or objective existence apart from the perceptions of the observer

*Determinism*: the assumption that all phenomena, including psychosocial ones, have physical (as opposed to metaphysical) causes that are potentially amenable to scientific investigation and discovery

*Positivism*: the belief that valid knowledge about the objective world *can* be arrived at through scientific research

*Rationalism*: the belief that reason and logic are useful tools for scientific inquiry and that, ultimately, truthful or valid accounts of human behavior will be rational or logically understandable

*Empiricism*: a preference to rely on evidence gathered systematically through observation or experiment and capable of being replicated (i.e., reproduced and verified) by others using satisfactory standards of evidence

*Operationism*: the assertion that it is important to develop measures and treatments that can be reliably replicated by others

*Parsimony*: a preference to seriously consider the simpler of the available and adequate explanations of a phenomenon prior to accepting a more complex account

*Scientific skepticism*: the point of view that all scientific claims (e.g., Treatment X helps clients) should be considered to be of doubtful validity until substantiated by credible empirical data

*Naturalism*: the perspective that the world in which we live, the objects, people, and processes that occur within it, consist of natural phenomena, potentially understandable without any need to invoke supernatural or metaphysical forces

## Some Rejected Principles

*Metaphysics*: explanations involving supernatural, incorporeal, or immaterial entities or factors

*Nihilism*: the doctrine that all values are baseless and that nothing is known or can be learned

*Dualism*: the view that the world consists of the two fundamental entities of mind and matter

*Reification*: attributing reality to an abstract or hypothetical construct (e.g., the super-ego) in the absence of adequate evidence supporting the existence of that construct

*Circular reasoning*: an explanation for human behavior in which causes and effects cannot be distinguished from each other

*Scientism*: the theory that the investigational methods used in the natural sciences should be applied in *all* fields of inquiry (e.g., values and ethics) and used to answer all questions of interest to social workers

*Radical skepticism*: also known as Pyrrhonian skepticism, after the Greek philosopher Pyrrho of Elis. This position asserts that nothing can be known or, more moderately, that all judgments should be suspended.

Now, certainly, some words of clarification might be needed here because a few of the preceding positions could be seen as challenging or confusing to the reader. Let us begin

with *realism*. Most do accept the idea that the world continues merrily along, even though we might not be aware of it—for example, when we are asleep or under anesthesia. But to accept realism is not to reject the potentially important role of individual perceptions in the construction of an individual's world. As many of us were growing up, Pluto was said to be a planet, homosexuality was a mental illness, and, earlier, Galileo was a dangerous heretic in the eyes of the Church. Now Pluto is not said to be a planet, homosexuality is no longer seen as a mental illness, and Galileo has been hailed by the Vatican as an intellectual hero! Pluto swims along in the heavens undisturbed by the votes of astronomers. The nature of one's sexual orientation does not depend on majority votes of a group of psychiatrists, and Galileo's achievements do not rise or fall according to clerical preferences. To be a realist means to accept that at least *some* part of our world has an objective existence, and for many areas of social work practice, it is these objective realities that are the focus of intervention. Actually, most social workers are hard-core realists, and it is only a small (but vocal) minority who challenge this notion, mostly philosophically oriented sherry-sippers located within the academy. The wisdom of social work pioneer Betha Capen Reynolds remains the mainstream and commonsense view:

At first glance it seems unnecessary to state that, if we believe in a non-capricious and objectively reliable universe, such belief also includes social and economic forces with which we can cooperate. Actually, we constantly deny this reliance on objective reality in favor of subjective fantasies. (Reynolds, 1963/1991, p. 315)

and

A second characteristic of scientifically oriented social work is that it accepts the objective reality of forces outside itself with which it must cooperate. (Reynolds, 1942, p. 24)

Social workers Mantysaari (2005) and Beckett (2007) provide some contemporary perspectives on the usefulness of realism as a philosophical axiom for social work.

We accept *determinism* whenever we attempt intervention by the tacit assumption that treatment can have effects. If we did not believe that clients' problems or social ills had causes, then what would be the point of having an entire profession devoted to discovering those causes and remedying them?

Although the term *positivism* is often used as a term of approbation in the social work literature, in reality, many of the criticisms against it have portrayed a straw man. Most of us believe that scientific inquiry about the world of our clients and the amelioration of their difficulties can be a useful undertaking. The dominant philosophy of science in both the natural and social sciences, including social work, has been and remains the approach generally known as *positivism*: "A paradigm introduced by August Comte that held that social behavior could be studied and understood in a rational, scientific manner—in contrast to explanations based on religion or superstition" (Rubin & Babbie, 2008, p. 642). *That* simple idea is positivism in a nutshell. We are all positivists, to some extent (Thyer, 2008b). A clear Comtean influence was evident in a talk given at the National Conference of Social Work in 1918, when

Ellwood outlined the development of social work. According to him it "began with a theological stage, passed through a metaphysical stage, and is entering upon its scientific stage." He holds that "the scientific stage will be reached when social work

passes fully under the domination of science; when it becomes transfused with the spirit and transformed by the method of modern science. . . . The social worker must learn to become a scientific social thinker also. Simple good will and human sympathy are no sufficient guide for the social worker. They may furnish warmth, but not light.” (Quoted in Karpf, 1931, pp. 71–72)

A statement by U.S. social worker Frank Bruno provides a more mature summary of this position:

Social work holds as its primary axiom that knowledge of human behavior can be acquired and interpreted by the senses and that inferences drawn from such knowledge can be tested by the principles of logic. The difference between the social work of the present and of all preceding ages is the assumption that human behavior can be understood and is determined by causes which can be explained. We may not have at present a mastery of the methods of understanding behavior, but any scientific approach to behavior presupposes that it is not in its nature incomprehensible to sensory perception and inference therefrom. (Bruno, 1936, pp. 192–193)

Positivism was also the dominant philosophy of science during the establishment of the British system of social welfare, as exemplified in the work of founders such as Sidney Webb (see Bevir, 2002) and strongly influenced American social workers Mary Richmond (Agnew, 2004, p. 117) and Jane Addams. Positivism itself has spawned many variants, with Halfpenny (1982) listing over a dozen contrasting views. The version known as logical positivism is no longer generally held to be a viable position, and it is important to not conflate this particular limited philosophy of science with the more generic and widely accepted approach defined above (see Bolland & Atherton, 2002).

For the many positivists, traditional abstract philosophical problems are essentially unresolvable by the methods of science (e.g., What is beauty? What is truth?) and are therefore seen as pseudo-problems and serve only to distract us from more serious issues. Whether this handbook that you are reading is “real” or whether you are simply dreaming about it (a nightmare!) cannot be ascertained with certainty by scientific methods. Thus, positivism dismisses such issues from the purview of science and moves on to the more practical matters that concern most social workers. Asking provocative philosophical questions, posting tautologies and conundrums, and pointing out professional paradoxes can be both interesting and fun at times. But if we become preoccupied with such issues to the extent that we become professionally immobilized, then what was a harmless distraction has become a destructive influence.

Positivism does not mean that scientific research is the *only* way in which to discover useful knowledge. Positivism does *not* mean that all knowledge obtained from nonscientific sources is incorrect or useless. And positivism does *not* mean that any supposed finding obtained from a “scientific study” is free from error or that science does not make mistakes. Remember the excitement of the discovery of “cold” fusion two decades ago, with its unfulfilled promise of unlimited, pollution-free energy for humankind? How about the early astronomer who discovered “canals” on Mars, canals then also claimed to be seen by other astronomers (sorry, there are no canals on Mars). And if mistakes occur in the relatively “cleaner” disciplines such as physics and astronomy, then think how much more difficult it can be to design and conduct sound scientific studies in the field of social work, studies taking place not in a germ-free laboratory using purified reagents but rather in the hurly-burly of clients’ *lives*, in the real-world contexts in which social problems exist. Social workers can envy the bench scientists’ degree of experimental control over

their subject matters and the reliability of the findings they can obtain. Envy, perhaps, but with the appreciation that our field is more intrinsically difficult and challenging. Research into the causes of social problems and into the development and evaluation of interventions designed to ameliorate or prevent them can be seen as more difficult and as requiring greater intelligence and perseverance than rocket science.

Certainty in science is relative, provisional, and fallible, with any given finding always susceptible to being overturned by new and better data. “Science does not claim to have complete knowledge of the truth or to have established perfect order out of chaos in the world. It is less an accomplished fact than an attitude” (Todd, 1920, p. 71). Through scientific research, we may perhaps come closer to nature’s truth, even if we are unable to completely understand it.

Few would argue that *rationalism* and *empiricism* are not noble attributes, and most accept that it is necessary for both practice and research purposes to operationalize our measures so as to elevate what we do beyond the level of art to that of a teachable skill and a communicable method. We make use of *parsimony* wherever we check out the simplest and most obvious explanations of a problem first. And *scientific skepticism* is our protection against being overwhelmed by an ever growing number of claims. Skepticism flourished during the Enlightenment as a reaction to traditional theological explanations for things. Scientific skepticism deals in claims made with respect to areas that are the purview of scientific research. Scientific skepticism is not applicable to nonscientific claims (but other forms of skepticism might be, e.g., religious skepticism), although there is some overlap (e.g., testing the claims of fraudulent faith healers, designing and conducting randomized controlled trials of the purported healing powers of prayer).

Social workers do not usually invoke spiritual explanations for domestic violence, rape, or child abuse and neglect. Nor are demons usually seen as the cause of unemployment, poverty, or sudden infant death syndrome. A social worker might subscribe to metaphysics or supernatural beliefs in his or her personal life, but in professional social work, metaphysical accounts typically are eschewed in favor of material ones. *Nihilism* is, in a sense, the reverse of positivism (although social work researchers with a sense of humor have noted that the opposite of positivism is negativism), basically denying that advances in scientifically supported knowledge are possible. This view is, of course, refuted each time a new issue of a social work research journal is published. Few of us are *dualists* today. We might use the language of the “mind,” but we really know that we are talking about the physical processes of the brain as opposed to some immaterial entity called the mind that exists independent of the brain and body. Rejecting the concept of mind is an example of avoiding reification, and we also avoid reification every time we reject characterological explanations of why people act the way they do in favor of social, economic, or person-in-environment explanations. Circular reasoning remains rampant in social work, and it requires careful attention to avoid falling into this trap. Following are a couple of examples:

Q: Why don’t inner-city residents vote?

A: They are apathetic.

Q: How do you know they are apathetic?

A: They do not vote.

Q: Why does Allen drink so much?

A: He is an alcoholic.

Q: How do you know he is an alcoholic?

A: He drinks too much.

In these simple examples, the only evidence in support of the existence of the presumed “cause” (apathy or alcoholism, actual things said to reside within the person [i.e., characterological traits]) is the very behavior one is attempting to explain. If the only evidence for the existence of alcoholism is the very drinking that the alcoholism is said to cause, then despite the appearance of closure in explanation, in reality nothing has been explained. Pseudo-explanations involving circular reasoning often involve reification as well.

Contrast the preceding examples with the following:

Q: Why is Allen crying so much?

A: His wife left him.

Q: Why does Allen scream and run away at the sight of dogs?

A: When he was 4 years old, he was attacked by a Rottweiler.

In these latter examples, the possible causes are potentially verifiable and *not* inferred from the behavior that they are trying to explain. Thus, in a scientific sense, they are much more satisfactory explanations than the former ones.

The sin of *scientism* occurs when one ignores the fact that *many* very important issues of social work policy and practice are *not* matters capable (at least not at present) of being resolved by scientific inquiry. Whether or not same-sex partners should be permitted to be legally married is not a public policy issue on which science can shed much light. Whether or not pregnant minors should be required to obtain parental consent to undergo abortions, or whether or not the Georgia state flag should be altered to delete the Confederate stars and bars, is similarly a matter of values, morality, religion, philosophy, and social justice, not issues particularly capable of being resolved by scientific research. “The goals of social work are determined in large part by values, or philosophic rather than scientific considerations, and the means of social work are also affected not only by considerations of efficiency but also by moral and philosophical convictions” (M. W. Macdonald, 1960, p. 4). And this is as it should be. Science is modest and knows its limits. It also knows its purview, and although a great deal of social work is the legitimate subject matter of scientific research, much is not.

Parsimony and operationalism have ample precedents as useful elements of a philosophy of science for social work research. Take the view of the distinguished American social worker Helen Northen (1982): “The problem should be based on facts, not inferences, and defined in operational terms . . . instead of labeling a person as a rejecting mother, one would describe the behavior that is interpreted as rejection” (p. 74). And earlier, Mary Richmond (1917) offered this advice: “To state that we think our client is mentally deranged is futile; to state the observations that have created this impression is a possible help” (p. 362). Epstein (1984) provides a very instructive overview of the usefulness of parsimony as a basic approach to explanation and description.

Another point is worth stressing. To advocate for one position (e.g., that social work practice needs to rely more on scientific research findings) does not imply acceptance of a more extreme position (e.g., that we must eliminate all “art” from clinical practice). For example, Myers and Thyer (1997) argue that as EBPs emerge, clients should have a right to be offered those interventions by their social workers as treatment options of first

choice. This has been misconstrued by some to imply that evidence-based or scientific considerations should be the *only* voice in practice decisions. Such is not the case. Urging that science be invited to the dinner party does not mean that other guests cannot attend or should be cast out hungry into the darkness of the stormy night. Empirical research at present continues to play a relatively minor role in social work practice. Augmenting practice wisdom, insight, and art *with* the findings of science would merely seem to be the hallmark of professional practice, not a threat to these traditional sources of guidance. But what if, one might ask, the findings of scientific research *conflict* with the dictates of these other sources of knowledge? At present, that is a matter of personal choice and conviction. But certainly, forces external to, as well as within, the profession are urging that greater consideration be given to research findings.

## The Progressive Nature of Scientific Research

Another feature of science is its generally progressive nature. During the 18th, 19th, and early 20th centuries, large-scale systematic surveys of the plight of the poor were undertaken by individuals, private groups, and governments in Great Britain, Europe, and the United States documenting the incidence of social problems as well as their correlates and consequences. John Howard investigated the conditions of prisoners, prisons, and jailers in Britain, Europe, and Russia. Sir Frederic Morton Eden examined the state of the poor in Britain and published a large-scale study of his findings in 1797. Charles Booth studied the living and working conditions of the people of London, and Beatrice Webb conducted social investigations across Britain. These are only a few of the pioneers in scientific social work. In the United States, Dorothea Dix conducted systemic investigations of conditions in mental hospitals. These and the Pittsburgh Survey of 1907 (the American equivalent to Booth's work) are just two of many similar examples. In turn, the results of these early scientific surveys, having elevated the plight of the poor beyond that of real or fictitious anecdotes (as in Charles Dickens's *Oliver Twist*), helped to set the stage for progressive welfare legislation aimed at ameliorating human misery. Indeed, by the early part of the 20th century, progressive social reform movements had become almost *synonymous* with a reliance on scientific research. As noted by Larson (1995),

Progressive reforms characteristically reflected a “belief in interventionism” and “relied upon organization, the application of scientific (or social-scientific) expertise, and the value of efficiency and rationality” to solve the pressing social, political, and economic problems of the day. Thus, individual progressive reform movements typically began with the formulation of a rational or scientific solution to a pressing social problem, proceeded to the organization of a public education campaign to promote voluntary acceptance of the solution, and concluded with the passage of laws to compel conformity with it. . . . Progressives relied heavily on the scientific and social-scientific expertise provided by leading universities. (pp. 15, 17)

In short, a reliance on the findings of scientific research has long been associated with the fields of social work and social welfare, and the tools of science have been harnessed to promote progressive social welfare legislation to such an extent that the very term *progressive* implied a reliance on science. This can be contrasted with the widespread contemporary association of the term *progressive* with left-wing politics or of the views of some who see scientific research as inherently conservative, if indeed not anti-progressive.

These latter voices are heard commonly enough with social work to cause Allen Rubin (1999), then president of the Society for Social Work and Research, to devote an editorial rebutting such erroneous views, claiming,

We need to test out our noble intentions with research. We need to do this for three reasons. The first reason is to be sure we are supporting something that is really helpful (and not harmful). The second reason is that scientific evidence strengthens our ability to persuade other to support our proposals and, thus, help us build stronger coalitions and ultimately have more influence as a profession. The third reason is that to eschew such research is to belie our claim to be a profession. (p. 281)

The more things change, the more they stay the same. Contrast Rubin's (1999) editorial with the following statement made almost 70 years ago:

Employment of scientifically approved and tested techniques will ensure the profession the confidence and respect of clients and the public, for increasingly the social casework process will operate more certainly for known and desired ends in the area of social adjustment. (Strode, 1940, p. 142)

Or, how about 90 years ago:

Social science and its applications must share the spirit, if not the strict technique, of the exact sciences. The elements of scientific approach and scientific precision must be back of all social reform which hopes to weather the storms. (Todd, 1920, p. iv)

Or, how about over 95 years ago: "To make benevolence scientific is the great problem of the present age" (Toynbee, 1912, p. 74).

By now, the point made initially in this chapter should be adequately reinforced. Both philosophically and practically, professional social work has espoused a reliance on the findings of scientific research and has encouraged social workers to actually undertake such research studies themselves. This means that social workers need to be trained in scientific research methods. This commitment is pervasive throughout the profession. For example, the *Code of Ethics* of the National Association of Social Workers (1996) states,

Social workers should base practice on recognized knowledge, including empirically based knowledge, relevant to social work and social work ethics. . . . Social workers should contribute to the knowledge base of social work. . . . Social workers should promote and facilitate evaluation and research to contribute to the development of knowledge. . . . Social workers should educate themselves, their students, and their colleagues about responsible research practices. (pp. 22, 24–26)

Research training is deemed an essential component of the B.S.W. and M.S.W. curricula by the organization that accredits social work educational programs, the Council on Social Work Education. So, it is fair to claim that research training, research use in practice, and the conduct of research can be considered part and parcel of the activities of a professionally trained social worker.

## Some Purposes of Research

There are many ways in which to try to conceptualize research activities within social work, and a commonly used framework classifies research efforts as those aimed at generating



*descriptive* knowledge, those aimed at producing *explanatory* knowledge, and those focused on *interventive* knowledge. Most research in various fields of science begins, by necessity, with descriptive work. We could not have a genuine science of chemistry until we had established a periodic table of the elements that corresponded reasonably well with the way in which elements actually occur in nature. Similarly, developing a way of classifying species of plants and animals that accurately reflected the way in which they are divided in the natural world was a great impetus to the development of biology. Although social work lacks such comprehensive descriptive systems, devising a way in which to reliably and validly measure psychosocial phenomena that we are interested in (i.e., to *describe* them accurately) is an essential feature of legitimate scientific inquiry. Measurement, of course, means the assignment of a number or quantity to some phenomenon, and just about everything that social workers are concerned about has the potential to be measured. In fact, this can be considered *axiomatic*:

*Axiom 1:* If something exists, then it has the potential to be measured.

If the reader does not believe this, then he or she should try to come up with an example of some *social work* issue, client concern, or problem that *cannot* be measured. The reader will be hard-pressed to do so. Alcohol abuse? Child abuse? Domestic violence? Schizophrenia? Depression? Poverty? Each and every one has been the focus of decades of increasingly rigorous efforts to measure these things. Occasionally, one might hear a skeptic claim, “Well, you just can’t measure X.” An interesting question to ask the skeptic at this point is, “Well, do you mean that no one, ever, anywhere, has ever been successful at measuring X? Or, do you really mean that *you* do not know how to measure X?” Lacking omniscience, most such naysayers will quickly back down, for in truth there is such a vast array of scientific literature out there on how to measure things of concern to social workers that one will very likely be able to locate relevant studies describing reasonably justifiable ways in which to measure X. Why this emphasis on measurement? Because of the following:

*Axiom 2:* If something is measured, then the social worker is in a better position to investigate it.

Imagine trying to study the temperature prior to the development of measuring heat in terms of degrees (as in Centigrade scale) or before having thermometers as measuring instruments. Closer to home, imagine trying to study poverty prior to defining it along some reasonable dimensions such as income, assets, and/or debt. In fact, the federal government has a number of definitions of poverty that it uses in its various entitlement programs. Early studies on schizophrenia and other so-called mental disorders were hampered by the use of vague, loose, and poorly operationalized terms, and over the past three decades, immense advances have been made in trying to more accurately capture the realities of human psychopathology via the development of a more reliable system of classifying psychiatric disorders. *Child abuse* is defined legally in most states, and even though it sometimes is extremely detailed, often there still are loopholes. Nevertheless, these legal definitions do go far to help protect children from certain harsh experiences (even if they are not perfect operational definitions). To be sure, the process of measuring aspects of clients’ lives can be immensely challenging. For one thing, “In social work, there is this significant difference that the observer cannot avoid being a part of the social situation he is studying. Special methods must be worked out to take this factor into effect” (Reynolds, 1942, p. 23). Note that Reynolds (1942) does not suggest that we abandon as hopeless

efforts to measure psychosocial phenomena, only that we be aware of the problems posed and cope with them with suitable research methods.

This leads us to the following:

*Axiom 3:* If a client problem can be validly measured, then the social worker is in a better position to effectively help the client and to see whether the efforts are followed by improvement in the client's life.

Again turning to Richmond (1917), "Special efforts should be made to ascertain whether abnormal manifestations are *increasing* or *decreasing* in number and intensity, as this often has a practical bearing on the management of the case" (p. 435). If the social worker does this with clients as individuals or with larger groups of consumers, then he or she has undertaken intervention research. But more on that later.

*Explanatory* research efforts essentially aim at developing and testing theory, and a very large amount of valuable scholarly effort goes into such endeavors. Theory has been defined as "a group of related hypotheses, concepts, and constructs, based on facts and observations, that attempts to explain a particular phenomenon" (Barker, 2003, p. 434). Some theories are relatively small scale and attempt to develop accounts of very limited phenomena. The theory of the "insular mother" as a precipitant for child abuse is one example and leads logically to interventions intended to prevent or ameliorate child abuse by getting the mother more involved with a social network of adults or by instituting a program of frequent home visits. The "tension reduction theory" of alcohol abuse hypothesizes that individuals drink too much so as to cope with internally imposed or external stressors. This theory leads to interventions designed to teach stress-coping skills or to reduce aversive experiences undergone by the individual. Other theories are more comprehensive. Freud's psychodynamic theory made a valiant effort to account for a very wide array of human psychopathology, and social learning theory similarly encompasses explanations for both psychopathology and everyday actions. Usually, it is the social and behavioral sciences (e.g., psychology, sociology, economics, political science) that focus on the development and testing of theory and applied fields such as social work, marriage and family therapy, and counseling looking at the applications of these theories in practice. There has been little indigenous *theory* developed exclusively within and by social workers, who traditionally have been involved more in the application of theory through direct and community practice. Indeed, given the interdisciplinary wellsprings from which social work draws sustenance, it is not very likely that social work itself will be able to develop a large body of knowledge that is discipline specific (Thyer, 2002). And indeed, given the focus of social work as an *applied* field made up primarily of practitioners, and given the very limited number of doctorates in social work earned each year, efforts to emulate the academic social and behavioral sciences by focusing on explanatory research seem misguided. Surveys, correlational studies, needs assessments, predictor investigations (e.g., who among a group of people is more liable to develop a particular problem), comparisons, and the like are some of the types of research methods often used in conducting explanatory studies.

A very useful undertaking for social work researchers to engage in is the third form of scientific inquiry, interventive research or studies aimed at empirically evaluating the outcomes of social work services. Here, the pragmatic research methods involve conducting single-system evaluations of clinical outcomes, quasi-experimental group outcome studies, randomized controlled clinical trials, cost-benefit analyses, and policy evaluations. The design and conduct of interventive studies may produce findings that bear on the corroboration or refutation of selected hypotheses derived from a given theory, but often they do not. Some authorities even go so far as to distinguish *evaluation* studies as

different from *research* studies because of the applied focus of the former. This probably is a mistake. Interventive studies are part and parcel of the research enterprise and make use of many of the same principles of science as do descriptive and explanatory studies. Shaw and Lishman (1999) state this well: “Evaluation and research can often be distinguished only by general tendency and not by watertight categories. For example, *some* evaluation will involve theorizing and knowledge development” (p. 17).

Many social interventions are designed and carried out in the absence of any formal theory, and evaluation studies of the effectiveness of such interventions should not be retrospectively construed as tests of a particular theory. Genuine tests of theory should be limited to interventive programs explicitly derived from a particular theory, not retrofitted. Because theories are *explanations* of phenomena, they should not be confused with related concepts such as philosophical assumptions undergirding the science used to conduct research and models of practice that describe what to do but in themselves are not explanations for the rise of problems and do not account for why an intervention might work (e.g., the task-centered model of social work practice). Thyer (2001) elaborates on the relationship between theory and research more extensively, arguing that not all legitimate interventive research studies need to be based on some theoretical framework or seek to test theoretical propositions. An interventive study that attempts to empirically find out whether a given social work program has been followed by improvements in client well-being is an exceedingly useful research endeavor and need not be disparaged if it fails to address theory. Indeed, the inappropriate use of good theories, or the use of incorrect theories, can actually be detrimental to the research enterprise and to social work practice (Thyer, 2008a).

A very large proportion of contemporary social work research may be classified as descriptive, around 36%, according to one survey by Rosen, Proctor, and Staudt (1999), with about 49% being explanatory in nature and only 15% being aimed at evaluating social work interventions. The figures need to be placed in the context that less than half (47%) of the articles actually appearing in mainstream social work journals from 1993 to 1997 presented empirical research findings at all, with the balance (the majority) being devoted to conceptual, theoretical, or methodological articles or to literature reviews. So, in actuality, only about 1 in 14 (7%) social work articles reported research on intervention. The reader can check these proportions out for himself or herself by picking up a recent issue of any social work journal and classifying each article as descriptive, explanatory, or interventive in focus.

The failure of the social work profession to focus more on interventive studies has been commented on extensively by many leading authorities. Numerous individuals have explicitly urged the field to conduct more studies on the outcomes of social work practice, claiming that such interventions have a far more practical and valuable impact on the field and client services than do descriptive or explanatory research. Here are a few examples:

- “The third type of research, evaluative studies of welfare programs and the activities of practitioners, are the most important of all” (Angell, 1954, p. 169).
- “Of highest priority are strategies . . . for the development of research-based, practice-relevant knowledge for using in services dealing with children and their families. . . . Research on actual service interventions is the critical element in connecting research to the knowledge base used by professional practitioners. . . . Research on the effectiveness of service interventions is a major form of representation of the profession to the larger society. *The most important issue for the immediate future is to bring the practice effectiveness concerns of social work practitioners together with the resources represented by social work researchers.* . . . The issue is now one of developing

investigations of social work intervention initiatives, studies that go beyond descriptive and explanatory research” (Austin, 1998, pp. 6, 17, 27, 43).

- “Studies are needed on the effectiveness of psychosocial intervention, including interventions previously tested under ideal controlled circumstances, in real-world health-care systems. This growing area of research affords social work opportunities to conduct research on actual programs and services. . . . Intervention research is costly and time-consuming. Social work is also disadvantaged in that it has yet to fully develop natural practice-research partnerships between researchers and service providers. . . . The collective commitment of the profession is needed to successfully address the current gaps in research on social work interventions” (Ell, 1996, pp. 587, 589).
- “We need to establish a research agenda for social work. . . . And intervention studies must be high in priority on such an agenda” (Rosen et al., 1999, p. 9).

Whether or not one agrees that interventive research should be seen as a more valuable form of inquiry for social workers than descriptive or explanatory studies, it does seem clear that there is a grave—indeed, harmful—shortage of the former and that greater efforts aimed at promoting research on social work practice are needed (Harrison & Thyer, 1988).

## The Methods of Science

Scientific research always has been characterized by methodological pluralism. No one approach to inquiry is suitable for answering all questions or for all purposes. There *is* a sort of hierarchy of methods arranged in loose order in which we can have confidence in the strength of the conclusions. For example, observational and correlational studies are seen as generally less persuasive than experimental studies in terms of making causal inferences. But this hierarchy is very flexible. A poorly designed randomized controlled study may have considerably less scientific merit than a well-conducted correlational investigation, or a qualitative case study may prove to be more informative than a quantitative survey. Such hierarchies are not meant to imply that some methods are intrinsically superior to others, only that, when well conducted, certain approaches have a better ability to help us sort out causal relationships than others. Since much research is *not* about trying to determine causal relationships, angst about supposed hierarchies of research methods is clearly misplaced. If one wishes to learn about the political views of M.S.W. students, a survey is a superior methodology relative to an experiment, to give but one example.

Some disciplines lend themselves more readily to experimentation than do others. For example, take legitimate scientific fields such as meteorology, geology, astronomy, and paleontology. Here, scientists primarily rely on observations and correlations among these observations. There are few, if any, genuine experiments intended to influence the weather, the movement of tectonic plates, the rotation of the planets, or the placement of fossils in the Earth’s strata, yet these disciplines certainly are recognized as “hard” sciences. True experimentation is also exceedingly difficult in the world of social work, and this makes those few examples that have been undertaken all the more precious and admirable. We too rely, to a great extent, on naturalistic observations, correlational methods, and quasi-experiments of less than ideal design so as to advance knowledge in our field.

Charles Darwin did not conduct any true “experiments,” but by soaking seeds in salt water and retrieving them from bird feces, he was able to create some very plausible hypotheses on how plant species could become widely distributed. And his naturalistic observations of many plant and animal species conducted around the world during his

voyage as a naturalist on the British naval vessel *Beagle* gave him the raw data that, after germinating for years, culminated in his theory of the evolution of species via natural selection, perhaps the greatest idea in history to influence biology. It took anthropologist Jane Goodall only one naturalistic observation of chimpanzees in the wild eating another animal to disprove the hypothesis that chimps are natural vegetarians. David Rosenhan's clever pseudo-patient study conducted during the early 1970s involved no "experiments." He simply sent graduate students out to seek admission to mental hospitals and, after their admissions, had them record their experiences. This marvelous qualitative investigation was published in *Science*, perhaps the most prestigious research periodical in the world (Rosenhan, 1973). The field of science always has embraced a variety of research methods, both quantitative and qualitative, and both always have been fruitfully employed by social work investigators.

The balance of this handbook presents a number of the major methods used in social work research. We start off with some fundamentals such as probability, reliability, validity, and statistics—not that these are easy, but they set the stage for understanding much of the subsequent material. Next comes a presentation of some of the various types of quantitative studies—descriptive studies, surveys, needs assessments, and various forms of outcome studies. This is followed by a substantial section of the book reviewing various qualitative research methods—how we can use narrative case studies, in-depth interviews, ethnographic research, and participant observation. A smaller section then deals with conceptual forms of inquiry—the development of theory, historical research, literature reviews, and critical analyses. The final section covers more general topics—ethical issues in the design and conduct of social work research; the roles of gender, ethnicity, and race in research; comparative international research; integrating qualitative and quantitative methods; applying for research grants; and suggestions for publishing research findings.

Working with clients, organizations, and communities can be fun. Knowing what one is doing by relying on evidence-based practice makes social work fun but also more likely to be effective and ethical. Today's practice environment is increasingly expecting human service providers to deliver evidence-based psychosocial treatments, where such knowledge has been developed. Scientific research is what enables us to figure out valid descriptive, explanatory, and interventive knowledge. A handbook such as this is developed to enhance your knowledge and comprehension of the principles contained herein. You are urged to attempt the further step of *application*. Perhaps by collaborating with others, you can try to undertake some of the research methods described herein—a small-scale survey, a needs assessment, a single-system study, or a pretest-posttest group outcome study. You could write up a narrative case study of your work with an interesting client or a historical study of a local social service agency. The truly ambitious reader can attempt to publish his or her work in a professional journal or apply for a research grant. All of these actions are intrinsic parts of social work *practice*. Consider trying them out.

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## USEFUL WEB SITES

### Research on Social Work Practice

<http://www.sagepub.com/journalsProdDesc.nav?prodId=Journal200896&currTree=Subjects&level1=M00>  
This journal is produced by Sage Publications and has a clear focus on publishing outcome studies on

social work practice. Methodological articles are rare, but there are occasional invited essays and editorials dealing with philosophy of science matters, and some of these have proved to be among this journal's most highly cited articles. The journal also publishes studies on the reliability and validity of methods of assessment useful in social work research and practice, as well as systematic reviews and meta-analyses.

### The Society for Social Work and Research

<http://www.sswr.org>

The SSWR was founded in 1994 as a free-standing membership organization dedicated to the advancement of social work research. It has about 1,300 members, mostly from the United States but also from around the globe. SSWR holds a well-attended annual conference each January, with a heavy emphasis on the presentation of empirical research. It also provides conference-based workshops in various research methodologies, an annual research awards program, and a free subscription to the journal *Research on Social Work Practice* or the *Social Service Review*. The Qualitative Research Methods Interest Group is a large and viable section within the SSWR and helps promote the inclusion of qualitative research studies within the conference program. A student membership costs only \$50.00 a year.

### Stanford Encyclopedia of Philosophy

<http://plato.stanford.edu/entries/popper/>

This free-access online digital library is a world-class Web-based scholarly resource. Its hundreds of entries are carefully reviewed and regularly revised and reflect current and cutting-edge scholarship in the diverse fields of philosophy, including philosophy of science. It contains a particularly well-written lengthy entry on Jane Addams with a focus on her role as the first woman "public philosopher."

### The Philosophy of Science Web Site Maintained by the London School of Economics

<http://pegasus.cc.ucf.edu/~janzb/science/>

This is an excellent resource containing dozens of links to primary and secondary sources related to ethics, epistemology, metaphysics, skepticism, ontology, the history of the philosophy of science, gender issues, and methodology.

## DISCUSSION QUESTIONS

1. Why would the proponents of evidence-based practice consider this approach to represent a more ethical approach to social work than alternative perspectives?
2. Select one of the philosophical assumptions of a scientific approach to social work research. Using Internet resources to learn more about it, explain why you think this assumption has merit or, alternatively, why it does not.
3. Locate a completed systematic review found on the Web sites of either the Cochrane or Campbell Collaborations on a topic of interest to you. After reviewing this, explain to the class what the focus of the review was, what the authors did, and what their conclusions were.
4. Surf around the Web site of Section III of Division 12 of the American Psychological Association, and locate their list of disorders and empirically supported treatments. Review one treatment said to be empirically supported when applied to clients with a disorder of interest to you. Come back to class and describe what you found.