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The Role of Science in Social Work

The Perennial Debate

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Abstract

- *Summary*: The age-old debate about the role of science in social work has intensified with the growth of scientific activities and the emergence of philosophically-based criticisms of prevailing scientific paradigms. Issues have included: constructionist challenges to the role of research in validating social work knowledge; divisions over whether there is enough credible scientific knowledge to make a difference in practice; disputes over whether such knowledge can be adequately disseminated and properly utilized; and controversies about the utility of applying research methods (e.g. single-case evaluations) in practice.
- *Findings*: Scientific methods are likely to provide superior knowledge, because they have evolved to become humankind's most powerful form of enquiry. Enough research-based knowledge does exist to make a difference in practice, and there are means to enable its dissemination and utilization. Moreover, a number of these methods can be productively used in practice.
- *Applications*: Practice based on research knowledge and strengthened by selective use of research methods should become a growing force in social work. Emphasis on methodological pluralism in research, and the development of common standards for the appraisal of knowledge, may further rapprochement among different factions in the debate over the role of science in social work.

Keywords knowledge method methodological pluralism science social work

The debate about the role of science in social work is as old as the profession itself. The development of the scientific charity movement in the late nineteenth century led to protests that the detached objectivity of science was incompatible with the altruistic spirit of alms-giving. John Boyle O'Reilly summed it all up as offering charity in the name of a 'cold statistical Christ' (cited in Sheffield, 1937:

275) In the following period the belief that social work should be grounded in science prevailed, but with numerous dissenting voices that questioned whether its practices and results could ever be adequately measured (Rich, 1926) – or indeed whether science had really anything at all to contribute (Taft, 1937).

During the past quarter-century the debate has become more intense and new issues have been introduced. One reason for this has been the growth of scientific enterprise in social work, marked by the rise of behaviorism, the empirical practice movement (Reid, 1994) and the increasing volume of social work and social science research. Another reason has been the appearance of new epistemologies that have questioned the contribution of traditional scientific paradigms.

In this article I shall try to examine the major dimensions of the debate as it now stands. Although I shall focus primarily on North American direct social work practice and its literature, I assume that my main arguments will also apply to social work elsewhere.

Two Uses of Science in Social Work

I shall organize my analysis in terms of the two major ways in which the helping professions have made use of science. One has been to follow a scientific model in conducting professional activities: science as a method. For example, a physician or social worker may use diagnostic tests and systematic observation, form hypotheses, evaluate results and so on in treating a patient or client. The professional here is behaving like a scientist in the case at hand. The other has been to use scientific knowledge to inform those activities: science as knowledge. In this usage the physician or social worker applies research-based knowledge to enhance understanding of the patient or client (assessment knowledge) or to remedy his or her problems (intervention knowledge).

In social work the use of science as a method essentially predated the use of science as knowledge. The scientific philanthropy movement, the survey movement and the systematic assessment protocols found in Mary Richmond's *Social Diagnosis* (1917) were all examples of the former. Scientific knowledge relevant to social work had, of course, started to accumulate in the early years of the profession with studies of the working classes and poor in the UK and the USA (Booth, 1904; Warner, 1894), but little of it was useful in direct social work practice. Useful knowledge began to appear with the psychoanalytic movement, but its scientific credentials were rather dubious. Only in the past three decades has there been a sufficient accumulation of reasonably rigorous scientific knowledge to make a difference in practice, and even this assertion is a matter of dispute, as we shall see.

Because these two uses have fared differently in the debates, they will be treated separately. Reversing their historical appearance, I shall consider first science as knowledge. This use is currently receiving most of the attention, and, as I shall argue, it is the more critical of the two.

Should Scientific Knowledge be the Last Word?

A traditional function of science in social work has been to produce validated or tested knowledge through systematic study of phenomena. It has been assumed that the well-developed methodologies of mainstream research – methods of testing the reliability and validity of measurement, systematic procedures for controlling bias in data collection, and the use of controlled designs and statistical analysis to rule out alternative explanations – could produce knowledge superior to that obtained from practice wisdom or theoretical speculation. It has always been realized that there may not be enough such hard knowledge, as it is sometimes called, to support practice and that much of it may not be relevant to practitioners' needs. But the answer to these problems, it was thought, was to produce a greater quantity of tested knowledge and find ways of increasing its relevance to practice.

During the last two decades, this function of mainstream research has been challenged on epistemological grounds by a number of critics (Heineman, 1981; Tyson, 1992; Witkin, 1991; McQuaide, 1999; for a review see Peile, 1988). At present, the principal challengers are the social constructionists who deny that conventional science is the best way to arrive at the truth. A central tenet of this position is that knowledge of reality is constructed through language and human discourse. As Dewees has put it, 'Realities, or beliefs, are constituted through language that creates or perpetuates shared meanings; . . . there are no objective or essential truths' (1999: 33). Nor are there any ultimate criteria for determining truth. 'There is no intrinsic reason, apart from the interests of particular groups, to privilege one form of writing and speaking or to limit knowledge claims to certain criteria' (Witkin, 1999: 7). Since there is no way of determining ultimate truths about reality, 'scientific beliefs are products of their times' (McQuaide, 1999: 412). The goal of progressively building a scientific knowledge base is therefore rejected. Hoffman pulls no punches in presenting the constructionists' claim: 'traditional scientific research, with its tests and statistics and probability quotients, is a pious hope if not a downright lie' (1992: 9).

If mainstream research in social work is just another form of discourse, and perhaps not even a very good one, then it certainly cannot be seen as a principal means of validating knowledge. We are left then with 'multiple truths' (Guba and Lincoln, 1982: 57) or as White has put it, the 'coexistence of competing but equally valid claims about the same phenomena' (1997: 742). In the critics' view, the main role of research is to explore phenomena through alternative research models, such as naturalistic (Guba and Lincoln, 1982), heuristic (Heineman Pieper, 1994; Tyson, 1992) or constructivist (Rodwell, 1998), which reject many of the traditional emphases of mainstream research, such as the premiums placed on objective measurement and controlled experiments. Although what the critics would do instead varies, they favor different forms of qualitative research. However, little social work research explicitly using these alternative approaches has been produced and, of course, from a

constructionist perspective no particular premium is placed on any kind of research-based knowledge.

To be sure, there has been an increase in qualitative research on both sides of the Atlantic, a long overdue development in my view (Sherman and Reid, 1994). However, most of this research can be placed within traditional scientific traditions, which have always made room for qualitative enquiry.

Although traditional qualitative methodologies, along with newer variants, may enrich social work knowledge, they fall short in serving key validating functions. This limitation can be most clearly seen in the role of controlled experiments in evaluating the effectiveness of interventions. While qualitative methods can add to our understanding of how interventions work and the effects they have, they cannot provide the kind of control and precision needed to ascertain whether or an intervention really makes a difference. Thus an overemphasis on qualitative methods and downgrading experimental and other quantitative approaches would severely limit the role of science in social work knowledge development.

Critics of conventional science are fond of attacking its presumed epistemology, which in their view turns out to be something resembling either Comtean or logical positivism (see, for example, Heineman, 1981; Tyson, 1992). The criticisms are pursued oblivious to the fact that neither form of positivism has much relevance to the thinking or practice of contemporary scientists (Phillips, 1992). Usually ignored is the work of post-positivist philosophers of science whose views are in tune with the outlook of modern science. I have in mind such philosophers as Bunge (1996), Kitchner (1993), Lakatos (1972), Nagel (1997), Phillips (1992), Popper (1959) and Siegel (1987). Their work has posited the existence of an objective reality that is knowable, however imperfectly, to outside observers. In this realist conception, as Phillips (1992) has pointed out, truth can be a 'regulative ideal', a goal that we strive for but do not always attain. We must often settle for probabilistic, approximate or partial truths. To be sure a situation can be viewed from multiple perspectives, but a perspective or truth claim is not equivalent to truth (Haack, 1996). Thus, there are various perspectives on what causes AIDS, including witchcraft, but only one explanation or some variation thereof, that it is the result of HIV, would be considered true, a fact that few constructionists, I am sure, would dispute. Similarly, in case situations, there may be various perspectives on the part of family members, social workers, etc. about the nature of the sexual abuse of a child but only one truth, even though that truth might never be fully ascertained.

If we can separate truth from perspectives, beliefs and so on, in what sense can we say that science provides the best way of ascertaining it? Certainly there are 'many ways of knowing' (Hartman, 1990) and certainly truth in everyday life, and also in much professional practice, can be determined without the help of science. The scientific method is a specialized tool for determining truth when ordinary means of enquiry do not suffice, but still can be seen as an elaboration of these means. (My use of the terms 'scientific' or 'science' refers

to conventional or mainstream approaches, not the kinds discussed earlier.) As Dewey once put it, 'Scientific subject-matter and procedures grow out of the direct problems and methods of common sense – but enormously refines, expands, and liberates the contents and the agencies at the disposal of common sense' (1938: 66). Sheppard makes much the same point when he comments that 'the "thought processes" ' we use in conducting our everyday lives are, in principle, the same as the methods characteristic of social science' (1998: 767).

Through simple observation of how clients respond to intervention *x*, we may gain some impressions of how it may be helpful, but to assess its efficacy with greater certainty we would need to refine and expand these observations. This path would lead to the use of procedures to measure change and control for alternative explanations in its application to a group of clients, procedures that logically culminate in a randomized experiment. In other situations the need to obtain the best knowledge possible would lead to other extensions of common sense, perhaps a survey or a semi-structured interview in a qualitative study (rational extensions of the age-old device of getting information by asking others).

Thus in the domain of complex questions for which data can provide answers, scientific methods may well provide the best knowledge simply because they have been developed over time to do just that. This does not mean that they will invariably do so or that the knowledge they produce will be free of error or uncertainty. But it does mean that scientific knowledge is the place to look when one is searching for definitive answers to questions about phenomena, whether physical or psychosocial.

Even if special authority is ascribed to scientific knowledge, many other things need to fall into place before such knowledge becomes an important factor in social work practice. Credible and relevant knowledge must exist in sufficient quantity; it must be disseminated to practitioners in usable forms; it needs to be implemented with adequate fidelity. We shall consider now these components and the controversies that surround them.

Is There Enough Credible and Relevant Scientific Knowledge to Make a Difference in Practice?

As noted, this question has just recently become a matter for debate. There is little dispute that most practice decisions must still be based on non-empirical knowledge. As Berlin and Marsh (1993: 230) observe: 'Despite the importance of empirical knowledge, it is insufficient for guiding practice. Practitioners must frequently, if not usually, use methods that lack an empirical base.' Although few would disagree with these authors, many would still maintain that a sufficient base is already at hand to support a significant amount of practice. For example, a task-force of leading social work researchers has proposed that research-based knowledge in practice courses be required as a condition of accreditation (*Building Social Work Knowledge*, 1991). Myers and Thyer (1997)

have suggested that the professional code of ethics for US social workers should require that practitioners use empirically validated treatment when such has been established. While neither proposal is likely to see the light of day, at least for now, they both assume that we have a sufficient body of scientific knowledge to make critical differences in how practice is taught and conducted. Similar assumptions are made by advocates of evidence-based practice (Gambrill, in press) and research-based practice guidelines (Howard and Jensen, 1999; Proctor and Rosen, in press), two developments that do appear to be moving ahead, as discussed below. Contrary points of view take different forms. As might be expected, social constructionists reject the very notion that the products of mainstream research should be a foundation for practice (Witkin, 1991). Others concede the value of scientific knowledge but hold that empirically validated theories and methods are limited to too narrow a range of problems to constitute a major force in practice decision-making (Chandler, 1994). Still others, using very strict criteria of proof, maintain that there is no basis for assuming that effectiveness has been established for any form of social work intervention (Epstein, 1995).

Nevertheless, a strong case can be made that a critical mass of tested intervention knowledge has been established. During the past two decades a number of reviews and meta-analyses have identified a sizeable body of demonstrably effective practice methods used by social workers (deSchmidt and Gorey, 1997; Gorey, 1996; Gorey and Thyer, 1998; MacDonald, 1994; MacDonald et al., 1992; Reid and Fortune, in press; Reid and Hanrahan, 1982; Rubin, 1985; Sheldon, 1986; Videka-Sherman, 1988). A two-volume handbook of empirically supported approaches to a sizeable array of clinical problems has recently appeared (Thyer and Wodarski, 1998; Wodarski and Thyer, 1998).

The most recent of these reviews (Reid and Fortune, in press) identified 129 empirically tested social work programs reported in the US literature during the 1990s, programs evaluated through either randomized or quasi-experimental designs.[1] (It should be noted that a number of these programs were conducted in British Commonwealth countries.) The programs took place in all major fields in which social workers practice. Most frequently addressed – in the order given here – were problems of mental health, child/youth behavior, substance abuse, ageing, health, domestic violence and child abuse or placement. For the overwhelming majority of the programs (88%), evaluations revealed positive findings on at least one major variable. The great majority of programs tested used action-oriented methods, primarily cognitive-behavioral. There was little testing of psychodynamic, humanistic or ecological approaches.

These methods are part of a much larger set of interventions of proven efficacy available to the helping professions. For example, Reid (1997) reviewed 42 meta-analyses (in 31 problem areas) that examined the results of several thousand experimental tests of interventions in the helping professions that are (or could be) used by social workers. The vast majority of studies in these meta-analyses reported positive effects. Although behavioral and cognitive-behavioral

methods predominated in the reviews and meta-analyses referred to, positive effects were found for a wide variety of approaches.

The developments reviewed above suggest that an ample body of research-based methods exists as a base for a substantial amount of practice, especially for many common problems, such as anxiety, depression, eating disorders, marital discord, substance abuse, juvenile delinquency and child behavior difficulties. However, the credibility of this knowledge base still falls considerably short of the ideal. Perhaps the main problem stems from possible experimental demand or investigator allegiance that may bias the experimental evaluations. When these forms of bias are operative, the outcome of an intervention experiment may be shaped in the direction of the researcher's expectancies, hopes and other predilections. There is a good deal of evidence to suggest that such effects occur (Smith et al., 1980; Robinson et al., 1990; Gorey, 1996). This becomes a problem since most intervention experiments are conducted by adherents who have a stake in the outcome. For example, in the Reid and Fortune (in press) review, 90 percent of the evaluations of programs found to have positive results were conducted either by developers of the intervention or by researchers who appeared to support them. Unfortunately, the classic corrective to such possible biases, independent replication, is rarely carried out. As a provisional substitute for independent replication, one can consider research evaluating similar programs. When this was done in the Reid and Fortune (in press) review, it was found that results of the majority of successful programs were supported by evaluations of similar programs.

Another cause for concern is the relatively slow rate at which social workers are producing intervention knowledge. The 129 studies identified in the Reid and Fortune review were the product of a decade – scarcely more than a dozen studies a year spread out over eight or so practice fields. In a recent review of social work journals Rosen et al. (1999) found that only about 6 percent of the articles reported controlled studies of intervention.

Can the Knowledge be Adequately Disseminated and Utilized?

The existence of scientific knowledge to support practice is one thing; the dissemination and use of this knowledge is quite something else. There is considerable evidence that social workers make little deliberative use of research studies to support their practice (Kirk, 1990). Moreover, studies frequently do not provide sufficient information about the interventions tested to enable practitioners to replicate them: for instance, half of the controlled intervention studies identified by Rosen et al. (1999) fell into this category.

However, there is reason to believe that practitioners make greater use of research-based knowledge than might be suggested by the rather bleak picture presented above. The most common vehicle for dissemination of such knowledge to practitioners is not the research study reported in a journal but rather

empirically tested programs that are disseminated through the practice literature and courses. For example, a number of practice texts used in social work education programs present a variety of empirically tested methods (Corcoran, 2000; Doel and Marsh, 1992; Reid, 1992; Thyer and Wodarski, 1998; Wodarski and Thyer, 1998). This kind of indirect utilization (Reid and Fortune, 1992) provides practitioners with a way of using research products without necessarily having to consume the research that underlies them. Although understanding the research may be the ideal, it is not strictly necessary, just as it is not essential for physicians to have knowledge of the studies that have tested the efficacy of the drugs they prescribe. Indirect utilization, however, presupposes the existence of agents that will vouchsafe the empirical credentials of the methods delivered to practitioners and provide necessary guidance in their use. Course instructors, textbook authors, journal referees, government regulatory agencies (in the case of drugs) provide examples. Indirect utilization can obviously go awry if such agents perform poorly. A frequent problem is the presentation of methods as being more effective than is warranted by their research evaluations.

An emerging form of indirect utilization in social work is practice guidelines (Howard and Jensen, 1999; Proctor and Rosen, in press). Practice guidelines can be seen as assessment or intervention protocols based on some combination of research findings and expert opinion. They are typically developed by panels of experts who synthesize state-of-the-art methods with considerable emphasis given to those with research support. By combining research-based knowledge and expert opinion, guidelines can present coherent approaches that might not be possible if use was made only of research-tested methods, but will have been 'hardened' by empirical verification of at least some of their components.

Practice guidelines have been employed for over half a century in medicine with increasing use in recent years; moreover, there is evidence that their use improves patient outcomes (Howard and Jensen, 1999). Although their application in social work is in an early stage, there is a good deal of interest in exploring their potential. As Williams and Lanigan have commented, 'practice guidelines are clearly the wave of the future and a very hot topic in professional circles today' (1999: 338). Guidelines have recently been the focus of a special issue of a major social work research journal (Howard and Jensen, 1999) and of a conference involving leading members of the North American social work research community (Proctor and Rosen, in press). Numerous guidelines developed by other disciplines but still relevant to social work practice are available on the Internet. An excellent site is the (US) National Guideline Clearinghouse at http://www.guideline.gov/index.asp.

Practice guidelines can also take the form of detailed intervention manuals or protocols used in a rigorously evaluated research program. For example, in their review of experimentally evaluated programs cited earlier Reid and Fortune (in press) surveyed investigators about the use of guidelines by practitioners who implemented the program. In the majority of programs, written practice guidelines were used in implementing the interventions and a third of

the evaluators who responded indicated that the guidelines had been implemented in other settings. (The response rate was 81%.) In some cases rather wide utilization was reported. However, guidelines were not always translated into program descriptions in published reports, as noted (Rosen et al., 1999).

Although practice guidelines offer considerable promise, their development and use must overcome a number of hurdles. As Kirk (1999) has argued, the empirical bases of many assessment and intervention approaches are thin and equivocal. Moreover, guidelines need to grapple with the multiple meanings 'effectiveness' may have across different stakeholders, a phenomenon that has been well documented (Lambert and Hill, 1994). Richey and Roffman (1999) pose an additional challenge. Guidelines in medicine and psychiatry have focused on treatment of the patient. Contemporary social work practice encompasses multiple roles beyond providing direct services to clients. System linkage (e.g. brokerage and advocacy), system development (e.g. creating programs) and system maintenance (e.g. facilitating service delivery) provide examples. Such system roles add additional complexity and interventions that often lack empirical support. These criticisms notwithstanding, the practice guideline movement offers considerable promise as a means of enabling social workers to make use of empirically supported methods.

Will Practitioners Implement Research-Based Interventions with Sufficient Fidelity?

Suppose we do deliver research-based interventions to practitioners, in the form of guidelines, manuals, courses, practice texts and so on. What happens then? In an age of practice eclecticism are practitioners likely to use these methods in bits and pieces, thus nullifying their empirical credentials? As Richey and Roffman ask, '[H]ow much [can] the intervention plan be altered before it is no longer viable' (1999: 317)? Treatment manuals and guidelines provide a means of keeping practitioners' adaptations within acceptable limits, but by no means guarantee that this will be the case. What these acceptable limits might be is an important empirical question that can be examined through existing or additional research. For example, in their evaluation of exposure therapy for obsessive compulsive disorder, Emmelkamp et al. (1990) found that the use of partners to assist treatment did not change the effectiveness of the method, which had been established in other research (De Rubeis and Crits-Cristoph, 1998, for a review). Thus there is evidence that use of partners in exposure would be an acceptable variation, one which would not affect the effectiveness of the basic method. But more research on this point is needed, especially studies especially designed to determine how variations in use may affect the effectiveness of an intervention.

How Can Scientific Methods be Best Integrated into Social Work Practice?

As suggested earlier, the scientific method can be viewed on a continuum from rational problem solving (common sense) to the use of elaborate designs and technical procedures. Most social workers have traditionally been proto-scientists in such ways as systematically collecting assessment data and using hypotheses about the client's problems as a means of guiding intervention. A new level of the use of scientific methods in practice was brought to North American social work in the 1970s as a part of the behavioral movement.

A major innovation of this movement was the single subject design (SSD) for assessing the effects of intervention. Even the simplest form of this design called for an unprecedented infusion of research methods into practice. The client's problems were to be defined in specific, observable terms usually expressed as the occurrence of some behavioral difficulty. Data on the frequency and severity of the problem over time were to be gathered to provide a baseline before the beginning of intervention. Data collection was to proceed in as rigorous a manner as possible, using such measurement techniques as direct observation or standardized instruments. The purpose of the baseline was to determine if predicted changes occurred after intervention was begun. In more elaborate forms of the design, the intervention could be manipulated to rule out extraneous factors that might be contributing to client change. In one kind of manipulation intervention could be started, stopped and started again to see if having intervention 'on' or 'off' made a difference in problem occurrence (the withdrawal/reversal design). Or clients could be held in pre-intervention baseline conditions for different lengths of time to see if changes in the problem occurred when intervention began (the across-clients multiple baseline design).

These designs proved attractive to a number of practitioner-researchers emerging from newly formed doctoral programs in US schools of social work (Reid, 1994). Dissatisfied with traditional psychodynamic casework approaches and sympathetic to the more scientifically oriented thrust of behaviorism, this group saw the SSD as a new and fruitful way of evaluating and developing social work interventions and of establishing professional accountability. In an effort to make the SSD relevant to the broad range of social work practice methods, the design was extracted from its behavior modification contexts and offered as a generic evaluation tool. Since SSD advocates were largely academics in schools of social work, texts and courses on SSDs soon appeared (e.g. Jayaratne and Levy, 1979; Bloom and Fischer, 1982). In the early 1980s US schools of social work were required by their accrediting body to teach students how to evaluate their own practice.

The primary means of disseminating SSD methodology in the USA has been through academic programs, although a number of projects designed to train practitioners in these methods have been carried out both in the USA

(Mutschler, 1984; Mutschler and Jayaratne, 1993, Toseland and Reid, 1985) and in the UK and elsewhere (Kazi and Wilson, 1996a, 1996b; Kazi et al., 1997).

Studies of practitioners exposed to particular educational and training programs as well as of practitioners generally have suggested that some modest carryovers of these methods into practice have occurred, although precisely how much and what kind is difficult to discern from global practitioner self-reports (for reviews see Reid and Zettergren, 1999; Kirk and Reid, in press). Small minorities of practitioners – about 10 percent in several studies – reported having used an SSD design on one or more occasions, usually the simpler, less intrusive forms, and again as defined by the respondent. Use of standardized instruments tends to be reported more frequently, as high as 30 percent and 60 percent of practitioners in two recent surveys (Marino et al., 1998; Mullen and Bacon, in press).

Criticism of the use of SSD methodology has come from both those opposed on epistemological grounds to applications of conventional science to practice (e.g. Heineman, 1981, 1994; Witkin, 1991, 1996) and mainstream researchers who question the appropriateness of this methodology in ordinary practice contexts (Bronson, 1994; Rubin and Knox, 1996; Thomas, 1978; Wakefield and Kirk, 1996).

The use of SSDs in ordinary practice has been the subject of numerous criticisms, including the following:

1. there is no evidence that SSD methods increase practice effectiveness (Wakefield and Kirk, 1996);
2. they inappropriately mix service and research considerations (Thomas (1978);
3. since the usual form of the design (baseline measurement followed by intervention) is not sufficiently well controlled to establish practice, they are of little help in establishing accountability (Wakefield and Kirk, 1996);
4. despite advocates' claims of theoretical neutrality, SSDs fit better with behavioral than with other forms of practice (Bronson, 1994; Wakefield and Kirk, 1996; Witkin, 1996);
5. given that the data they produce are often ambiguous, they are overrated as a form of case evaluation (Rubin and Knox, 1996).

Such criticisms have some merit. The use of intrusive research designs and procedures may interfere with service delivery. Although advocates have stressed use of non-intrusive methods (Blythe and Rodgers, 1993), basic texts still give considerable attention to the more intrusive ones (Bloom et al., 1999; Blythe et al., 1994). Simply tracking goal attainment, which is what the usual SSD does, is, at best, a weak form of accountability, especially when done occasionally without making formal use of the results. And surely SSDs do fit better with a behavioral approach, since they were expressly developed as a means of testing it.

Nevertheless, a case can still be made for selective use of SSD methodology

in clinical assessment and evaluation. Although there is no overwhelming proof that SSD methods improve practice effectiveness, some evidence that they may has emerged from recent studies (Slonim-Nevo and Anson, 1998; Faul et al., 2001). More generally, if use of scientific methods in practice can be seen as falling on a continuum, as I have argued earlier, then can the question be recast as what SSD methods might be useful under what circumstances? Assessment tools, such as standardized rapid assessment instruments (RAIs), can be applied to many (although certainly not all) client problems as supplements to (not as replacements of) interview-based assessments. For example, RAIs can provide a comprehensive sweep of a problem and give some indication of its seriousness in relation to established norms (Fortune and Reid, 1999), information that may be quite useful in assessment. Client self-monitoring instruments can serve both assessment and therapeutic purposes. Although SSDs may not be the most efficient means of establishing agency accountability, they can give practitioners some feedback on the progress of their cases and thus further their professional development. Granted SSDs may fit better to behavioral practice, a good deal of practice these days is cognitive-behavioral. That they may give a behavioral turn to other forms of intervention can hardly be argued, but it may be advantageous to make interventions more behavioral if by that is meant being specific about defining problems and goals. If SSD results are 'ambiguous' (Rubin and Knox, 1996), so are the realities of social work practice. I think students would have a good deal to gain from databased information about such ambiguities in the progress of their own cases. In general, I have found that application of SSDs to their own cases (in which they have a tremendous investment) provides a better means of helping them learn about research methods than abstract courses divorced from their experience.

In general, it may be preferable to think of a differential use of specific research components in practice, such as the use of research instruments in assessment or outcome evaluation, rather than to think of practitioners as carrying out entire SSDs. As such, the SSD, in a holistic sense, should not be seen as a tool of practice but rather as a method of research, in which it can make useful contributions to the development of social work knowledge. To be sure, agency practitioners may have occasion to use such designs, to develop and test practice innovations for example, but these efforts should be clearly thought of as research, and probably should be carried out with research consultation.

Thus far, I have considered the application of scientific methods at the level of the individual case. Such methods can also be used at the program level, for example, through the use of needs assessments, evaluation research and information systems that systematically collect data for purposes of program development. Such operations research does not add to social work's scientific knowledge base but can be an important means of improving agency services.

There is reason to believe that social work agencies as a whole are becoming more involved in such research. The growing use of computers, management

information systems, and requests for needs assessments, outcome evaluations and other data on the part of oversight and funding agencies are a part of this trend (Kirk and Reid, in press). There is also evidence of appreciable practitioner involvement in agency studies. In one recent survey of graduates of a school of social work, almost half reported participating in agency-based studies, principally needs assessments and client satisfaction surveys (Marino et al., 1998). Such developments can stimulate greater use of scientific methods at the case level. Benbenishty (1996, 1997) has proposed that SSD data be fed into agency information systems. In the USA, federal mandates requiring information systems in child welfare agencies are enabling social workers to do instant research by accessing computerized databases. For example, line practitioners or program planners can readily determine how length of time in foster placement varies by ethnicity for children in their region.

Conclusions and Implications

The long-standing debate about the role of science in social work has intensified in recent decades as the potential of science to affect practice has grown. The character of the debate has also changed. Those skeptical about the contributions of science no longer simply grouse about the inability of research to measure the immeasurable qualities of social work processes and outcomes. They now attack what they presume to be the foundations of the scientific enterprise, its epistemology, and present alternative epistemologies and research approaches compatible with them. On the positive side these developments have forced traditional researchers to examine their assumptions, to discover their own epistemologies, as it were, and have stimulated interest in the philosophical bases of both social work practice and research. However, the new criticism has been often guilty of attacking dated epistemologies that really do not reflect the premises of contemporary researchers. Those premises have been amply defended by post-positivist philosophers of science, although a defense is somewhat unnecessary. If science can be seen as an extension of basic human problem solving and reasoning capacities, it needs no philosophical underpinning. Although the philosophy of science may be useful in clarifying and raising questions about scientific constructs and procedures, it has no function as a stamp of approval. As Rorty has pointed out, the presumption that philosophers 'have a special knowledge about knowledge' is a 'dubious post-Kantian invention of philosophers themselves . . . [Their epistemologies] offer no "foundations" or "justifications" for scientific practice or for anything else in our culture' (1979: 393).

It is hard to say how much of an impact the philosophical debate will have on the growth of science in social work. In the USA at least this growth is being stimulated by other factors that are likely to be more potent than academic controversy. These include:

1. an increase in government- and foundation-supported testing of intervention programs;
2. greater emphasis in major schools of social work on funded research and the hiring of research-oriented faculty as a means of gaining resources and prestige;
3. data-based accountability requirements of oversight, funding, and managed care organizations;
4. the accelerating development of computerized information systems.

Although the science may never achieve the kind of dominance in social work that it enjoys in medicine or engineering, there is now a basis for giving research an expanded role in practice. Among the more promising areas for advancing this role are the development of practice guidelines based on some combination of research and expert opinion and the dissemination of empirically validated intervention programs. The infusion of such guidelines and programs into curricula in schools of social work is probably the best way to influence social work practice in the long run. Such an effort can be combined with use of the Internet to make research-based interventions more readily available to both students and practitioners. The emphasis in these developments would be on research knowledge, as opposed to research methods in practice. Although the latter have their purposes and should be used when appropriate, they should be seen as subsidiary to the use of research knowledge. There is little to be gained by tracking the ups and downs of a client's problem unless we know what to do about it.

Knowledge of how to intervene most effectively and efficiently is the key. We now have some knowledge that permits us to do this. We need to strengthen and expand this base, through replication of existing studies as well as through stepped-up development and testing of a broader range of intervention programs, including those addressed to problem variations, special populations and ecological complexities.

For the time being, if not for ever, social work must contend with competing ideologies and practices about the role of science in producing knowledge and about the kinds of knowledge that might best serve the profession. Among our factions are committed advocates of a practice based so far as is feasible on traditional scientific knowledge, proponents of new methods of enquiry and those who deny special status to any form of scientific product.

Be that as it may, there is no reason why different factions should not attempt to achieve some degree of rapprochement. After all there is a common enemy, human misery, that all social workers should be set against. I can think of at least two avenues that might be pursued. First, those espousing apparently different research models might be more accepting of a pluralistic approach to knowledge development, one that would recognize contributions of different forms of scientific methods. In methodological pluralism the type of method one

uses depends entirely on the questions and contexts of enquiry and not on one's epistemological position. Methods are evaluated pragmatically in terms of how well they do the job; they are not seen as being undergirded by foundational philosophies (Seale, in press).

Given the questions and contexts that arise in social work, a much greater role might be given to qualitative enquiry as a means of theory development and testing, as a way of illuminating complex and poorly understood phenomena, and as a vehicle for deepening our knowledge of service processes and outcomes. While quantitative researchers tend to give lip service to the role of qualitative methods, many view them, wrongly, I think, as having a limited, second-class role in advancing knowledge.

At the same time, there would be recognition that explanatory, quantitative methods, using advanced statistical techniques, might be highly useful as a way of teasing out and weighting the multiple factors that contribute to many social phenomena, that controlled experiments are required for definitive tests of the effectiveness of intervention, and so on. A major advance towards a pluralistic position could be made by simply recognizing the similarities among different research models. For example, Heineman Pieper, one of the harshest critics of the traditional positivist paradigm in social work research, proposes, as I have noted, an alternative heuristic paradigm. Yet this model accepts the entire range of research methods, including controlled experiments, in its assumption 'that there is no intrinsically superior methodology for getting at truth' (Heineman Pieper, 1994: 75). When one examines Rodwell's (1998) constructivist model, one finds an array of concepts and procedures, such as authenticity, trustworthiness, creditability, transferability, and audits, that, as Rodwell herself points out, 'parallels the criteria for rigor found in traditional research' (Rodwell, 1998: 263). In short, when one steps behind the rhetorical and epistemological screens of alternative research approaches, one finds methodologies that have much in common with traditional practice. I do not deny that there are real differences between these alternatives and traditional research, but the differences should not mask the similarities. Nor should the differences prevent combining the methods of these approaches with more traditional ones in conducting research.

A second avenue of possible rapprochement lies in developing common standards for the appraisal of knowledge produced by research and other sources. Such standards might be based on the notion that research and other forms of knowledge gathering spring from the same sources and use similar tools of enquiry, as I have argued. Criteria could be developed that might use concepts not identified with traditional research, e.g. something akin to Rodwell's authenticity and credibility. Knowledge might then be appraised in relation to its truth-value. Although terms other than truth might be used, constructionists must inevitably acknowledge that the notion of truth or its equivalents do apply to social work knowledge. For example, it is true that boys are more likely to be reported as having behavior problems in school than girls

and it is not true that the Charity Organization Society movement originated in the USA and then spread to England and Europe.

It would not need to be assumed that research-based knowledge has any inherent superiority over other forms of knowledge. Its superiority would need to be demonstrated for given questions and contexts. Thus a practitioner of intervention *x* might claim, based on his or her experience, that the intervention was generally efficacious in preventing child placement. If a sizeable number of rigorously controlled studies indicated otherwise, one might reasonably regard the claim as false, which would not deny the possibility that the practitioner himself or herself might not use the intervention effectively. By contrast, a good deal of research might suggest that clients with problem *y* are likely to have characteristic *z*. However, a sophisticated member of an ethnic group may deny the truth of that generalization for his or her group. Moreover, it is learned that no studies have been conducted with that group. In this case local knowledge might be regarded as having more credibility than knowledge based on research findings.

Both these forms of rapprochement point to the need to downplay intellectually titillating but unproductive philosophical controversies that may have little bearing on the practical worlds of social work and of social work research. There is a need rather to develop new frameworks and fresh vocabularies that may help us resolve the actual differences that may affect our work with those we are dedicated to serving.

Notes

1. A copy of this paper may be obtained from the author either electronically (wreid@albany.edu) or through regular mail.

References

Benbenishty, R. (1996) 'Integrating Research and Practice: Time for a New Agenda', *Research on Social Work Practice* 6(1): 77–82.

Benbenishty, R. (1997) 'Outcomes in the Context of Empirical Practice', in E. J. Mullen and J. L. Magnabosco (eds) *Outcomes Measurement in the Human Services*, pp. 198–203. Washington, DC: NASW Press.

Berlin, S. B. and Marsh, J. C. (1993) *Informing Practice Decisions*. New York: Macmillan.

Bloom, M. and Fischer, J. (1982) *Evaluating Practice: Guidelines for the Accountable Professional*. Englewood Cliffs, NJ: Prentice Hall.

Bloom, M., Fischer, J. and Orme, J. G. (1999) *Evaluating Practice: Guidelines for the Accountable Professional*, 3rd edn. Boston, MA: Allyn & Bacon.

Blythe, B., Tripodi, T. and Briar, S. (1994) *Direct Practice Research in Human Services Agencies*. New York: Columbia University Press.

Blythe, B. J. and Rodgers, A. Y. (1993) 'Evaluating Our Own Practice: Past, Present, and Future Trends', *Journal of Social Service Research* 18(1/2): 101–19.

Booth, C. (1904) *Life and Labour of the People in London*. London: Macmillan.

Bronson, D. E. (1994) 'Is a Scientist-Practitioner Model Appropriate for Direct Social Work Practice? No', in W. W. Hudson and P. S. Nurius (eds) *Controversial Issues in Social Work Research*, pp. 79–86. Boston, MA: Allyn & Bacon.

Building Social Work Knowledge for Effective Services and Policies: A Plan for Research Development. A Report of the Task-force on Social Work Research (1991). Austin, TX: Capital Printing.

Bunge, M. (1996) *Finding Philosophy in Social Science.* New Haven, CT: Yale University Press.

Chandler, S. M. (1994) 'Is There an Ethical Responsibility to Use Practice Methods with the Best Empirical Evidence of Effectiveness? No', in W. W. Hudson and P. S. Nurius (eds) *Controversial Issues in Social Work Research*, pp. 105–11. Boston, MA: Allyn & Bacon.

Corcoran, Jacqueline (2000) *Evidence-based Social Work Practice with Families.* New York: Springer.

DeRubeis, R. J. and Crits-Christoph, P. (1998) 'Empirically Supported Individual and Group Psychological Treatments for Adult Mental Disorders', *Journal of Consulting and Clinical Psychology* 66(1): 37–52.

deSchmidt, A. and Gorey, K. M. (1997) 'Unpublished Social Work Research: Systematic Replication of a Recent Meta-analysis of Published Intervention Effectiveness Research', *Social Work Research* 21(1): 58–62.

Dewees, M. (1999) 'The Application of Social Constructionist Principles to Teaching in Social Work Practice in Mental Health', *Journal of Teaching in Social Work* 19(1/2): 31–46.

Dewey, J. (1938) *Logic: The Theory of Inquiry*. New York: Holt, Rinehart & Winston.

Doel, M. and Marsh, P. (1992) *Task-Centred Social Work*. Aldershot, UK: Ashgate.

Emmelkamp, P. M. G., deHaan, E. and Hoodguin, C. A. L. (1990) 'Marital Adjustments and Obsessive-compulsive Disorder', *British Journal of Psychiatry* 156: 55–60.

Epstein, L. (1995) 'Brief Task Centered Practice', in R. Edwards (ed.) *Encyclopedia of Social Work*, 18th edn, pp. 313–23. New York: NASW Press.

Faul, A. C., McMurtry, S. L. and Hudson, W. W. (2001) 'Can Empirical Clinical Practice Techniques Improve Social Work Outcomes?', *Research on Social Work Practice* 11: 277–99.

Fortune, A. E. and Reid, W. J. (1999) *Research in Social Work*, 3rd edn. New York: Columbia University Press.

Gambrill, E. (in press) 'Evidence-based Practice: Implications for Knowledge Development and Use in Social Work', in A. Rosen and E. K. Proctor (eds) *Developing Practice Guidelines for Social Work Intervention: Issues, Methods, and Research Agenda.* New York: Columbia University Press.

Gorey, K. M. (1996) 'Effectiveness of Social Work Intervention Research: Internal Versus External Evaluations,' *Social Work Research* 20(2): 119–28.

Gorey, K. M. and Thyer, B. A. (1998) 'Differential Effectiveness of Prevalent Social Work Practice Models: A Meta-analysis', *Social Work* 43(3): 269–79.

Guba, E. and Lincoln, Y. (1982) *Effective Evaluation*. San Francisco, CA: Jossey-Bass.

Haack, S. (1996) 'Concern for Truth: What It Means, Why It Matters', in P. R. Gross, N. Levitt and M. W. Lewis (eds) *The Flight from Science and Reason*, pp. 57–63. New York: New York Academy of Sciences.

Hartman, A. (1990) 'Many Ways of Knowing', *Social Work* 35: 3–4.

Heineman, M. (1981) 'The Obsolete Imperative in Social Work Research', *Social Service Review* 55: 371–97.

Heineman Pieper, M. (1994) 'Science, not Scientism: The Robustness of Naturalistic Clinical Research', in E. Sherman and W. J. Reid (eds) *Qualitative Research in Social Work*, pp. 71–88. New York: Columbia University Press.

Hoffman, L. (1992) 'A Reflexive Stance for Family Therapy', in S. McNamee and K. J. Gergen (eds) *Therapy as Social Construction*, pp. 7–23. London: Sage.

Howard, M. O. and Jenson, J. M. (1999) 'Barriers to Development, Utilization, and Evaluation of Social Work Practice Guidelines: Toward an Action Plan for Social Work', *Research on Social Work Practice* 9(3): 347–64.

Jayaratne, S. and Levy, L. (1979) *Empirical Clinical Practice*. New York: Columbia University Press.

Kazi, M. A. F. and Wilson, J. (1996a) 'Applying Single-case Evaluation Methodology in a British Social Work Agency', *Research on Social Work Practice* 6(1): 5–26.

Kazi, M. A. F. and Wilson, J. (1996b) 'Applying Single-case Evaluation in Social Work', *British Journal of Social Work* 26: 699–717.

Kazi, M. A. F., Mantysaari, M. and Rostila, I. (1997) 'Promoting the Use of Single-case Designs: Social Work Experiences from England and Finland', *Research on Social Work Practice* 7(3): 311–28.

Kirk, S. A. (1990) 'Research Utilization: The Substructure of Belief', in L. Videka-Sherman and W. J. Reid (eds) *Advances in Clinical Social Work Research*, pp. 233–50. Washington, DC: NASW Press.

Kirk, S. A. (1999) 'Good Intentions Are not Enough: Practice Guidelines for Social Work', *Research on Social Work Practice* 9: 302–10.

Kirk, S. A. and Reid, W. J. (in press) *Science and Social Work: A Critical Appraisal*. New York: Columbia University Press.

Kitchner, P. (1993) *The Advancement of Science*. New York: Oxford University Press.

Lakatos, I. (1972) 'Falsification and the Methodology of Scientific Research Programs', in I. Lakatos and A. Musgrave (eds) *Criticisms and the Growth of Knowledge*, pp. 100–31. Cambridge: Cambridge University Press.

Lambert, M. J. and Hill, C. E. (1994) 'Assessing Psychotherapy Outcomes and Processes', in A. E. Bergin and S. L. Garfield (eds) *Handbook of Psychotherapy and Behavior Change*, pp. 72–113. New York: John Wiley & Sons.

MacDonald, G. (1994) 'Developing Empirically-based Practice in Probation', *British Journal of Social Work* 24: 405–27.

MacDonald, G., Sheldon, B. and Gillespie, J. (1992) 'Contemporary Studies of the Effectiveness of Social Work', *British Journal of Social Work* 22(6): 625–43.

McQuaide, S. (1999) 'A Social Worker's Use of the Diagnostic and Statistical Manual', *Families in Society* 80: 410–16.

Marino, R., Green, G. R. and Young, E. (1998) 'Beyond the Scientist-practitioners Model's Failure to Thrive: Social Workers' Participation in Agency-based Research Activities', *Social Work Research* 22: 188–91.

Mullen, E. J. and Bacon, W. F. (in press) 'Practitioner Adoption and Implementation of Evidence-based Effective Treatments and Issues of Quality Control', in A. Rosen and E. K. Proctor (eds) *Developing Practice Guidelines for Social Work Intervention: Issues, Methods, and Research Agenda*. New York: Columbia University Press.

Mutschler, E. (1984) 'Evaluating Practice: A Study of Research Utilization by Practitioners', *Social Work* 29: 332–37.

Mutschler, E. and Jayaratne, S. (1993) 'Integration of Information Technology and Single-system Designs: Issues and Promises', in M. Bloom (ed.) *Single-system Designs in the Social Services: Issues and Options for the 1990s*, pp. 121–45. New York: Haworth Press.

Myers, L. L. and Thyer, B. A. (1997) 'Should Social Work Clients Have the Right to Effective Treatment?', *Social Work* 42(3): pp. 288–99.

Nagel, T. (1997) *The Last Word*. New York: Oxford University Press.

Peile, C. (1988) 'Research Paradigms in Social Work: From Stalemate to Creative Synthesis', *Social Service Review* 62(1): 2–19.

Phillips, D. C. (1992) *The Social Scientist's Bestiary: A Guide to Fabled Threats to, and Defenses of, Naturalistic Social Science*. New York: Pergamon Press.

Popper, K. (1959) *The Logic of Scientific Discovery*. London: Hutchinson.

Proctor, E. K. and Rosen, A. (in press) 'The Structure and Function of Social Work Practice Guidelines Knowledge', in A. Rosen and E. K. Proctor (eds) *Developing Practice Guidelines for Social Work Intervention: Issues, Methods, and Research Agenda*. New York: Columbia University Press.

Reid, W. J. (1992) *Task Strategies: An Empirical Approach to Social Work Practice*. New York: Columbia University Press.

Reid, W. J. (1994) 'Field Testing and Data Gathering on Innovative Practice Interventions in Early Development', in J. Rothman and E. J. Thomas (eds) *Intervention Research*, pp. 245–64. New York: Haworth Press.

Reid, W. J. (1997) 'Research on Task-centered Practice', *Social Work Research* 21(3): 132–37.

Reid, W. J. and Fortune, A. E. (1992) 'Research Utilization in Direct Social Work Practice', in T. Grasso and E. Epstein (eds) *Research Utilization in Social Work*, pp. 97–116. New York: Haworth Press.

Reid, W. J. and Fortune, A. E. (in press) 'Empirical Foundations for Practice Guidelines in Current Social Work Knowledge', in A. Rosen and E. K. Proctor (eds) *Developing Practice Guidelines for Social Work Intervention: Issues, Methods, and Research Agenda*. New York: Columbia University Press.

Reid, W. J. and Hanrahan, P. (1982) 'Recent Evaluations of Social Work: Grounds for Optimism', *Social Work* 27: 328–40.

Reid, W. J. and Zettergren, P. (1999) 'Empirical Practice in Evaluation in Social Work Practice', in I. Shaw and J. Lishman (eds) *Evaluation in Social Work Practice.* Thousand Oaks, CA: Sage.

Rich, M. E. (1926) Editorial, *The Family* 7: 247.

Richey, C. A. and Roffman, R.A. (1999) 'On the Sidelines of Guidelines: Further Thoughts on the Fit Between Clinical Guidelines and Social Work Practice', *Research on Social Work Practice* 9: 311–21.

Richmond, M. (1917) *Social Diagnosis*. New York: Russell Sage Foundation.

Robinson, L. A., Berman, J. S. and Neimeyer, R. A. (1990) 'Psychotherapy for the Treatment of Depression: A Comprehensive Review of Controlled Outcome Research', *Psychological Bulletin* 100: 30–49.

Rodwell, M. K. (1998) *Social Work Constructivist Research*. New York: Garland Publishing.

Rorty, R. (1979) *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press.

Rosen, A., Proctor, E. K. and Staudt, M. M. (1999) 'Social Work Research and the Quest for Effective Practice', *Social Work Research* 23: 4–14.
Rubin, A. (1985) 'Practice Effectiveness: More Grounds for Optimism', *Social Work* 30: 469–76.
Rubin, A. and Knox, K. S. (1996) 'Data Analysis Problems in Single-case Evaluation: Issues for Research on Social Work Practice', *Research on Social Work Practice* 6(1): 40–65.
Seale, C. (in press) 'Quality Issues in Qualitative Inquiry', *Qualitative Social Work*.
Sheffield, A. E. (1937) *Social Insight in Case Situations*. New York: D. Appleton-Century.
Sheldon, B. (1986) 'Social Work Effectiveness Experiments: Review and Implications', *British Journal of Social Work* 16: 233–42.
Sheppard, M. (1998) 'Practice Validity, Reflexivity and Knowledge for Social Work', *British Journal of Social Work* 28: 763–81.
Sherman, E. and. Reid, W. J., eds (1994) *Qualitative Research in Social Work*. New York: Columbia University Press.
Siegel, H. (1987) *Relativism Refuted*. Dordrecht, Netherlands: Reidel.
Slonim-Nevo, V. and Anson, Y. (1998) 'Evaluating Practice: Does It Improve Treatment Outcome?', *Social Work Research* 22(2): 66–75.
Smith, M. L., Glass, G. V. and Miller, T. I. (1980) *The Benefits of Psychotherapy*. Baltimore, MD: The Johns Hopkins University Press.
Taft, J. (1937) 'The Relation of Function to Process in Social Casework', *Journal of Social Process* 1: 1–18.
Thomas, E. J. (1978) 'Generating Innovation in Social Work: The Paradigm of Developmental Research', *Journal of Social Service Research* 2: 95–115.
Thyer, B. A. and Wodarski, J. S., eds (1998) *Handbook of Empirical Social Work Practice*, Vol. I: *Mental Disorders*. New York: John Wiley & Sons.
Toseland, R. W. and Reid, W. J. (1985) 'Using Rapid Assessment Instruments in a Family Service Agency', *Social Casework* 66: 547–55.
Tyson, K. B. (1992) 'A New Approach to Relevant Scientific Research for Practitioners: The Heuristic Paradigm', *Social Work* 37(6): 541–56.
Videka-Sherman, L. (1988) 'Meta-analysis of Research on Social Work Practice in Mental Health', *Social Work* 33: 325–38.
Wakefield, J. C. and Kirk, S. A. (1996) 'Unscientific Thinking about Scientific Practice: Evaluating the Scientist-practitioner Model', *Social Work Research* 20(2): 83–95.
Warner, A. G. (1894) *American Charities: A Study in Philanthropy and Economics*. New York: Thomas Y. Crowell.
White, S. (1997) 'Beyond Retroduction? Hermeneutics, Reflexivity and Social Work Practice', *British Journal of Social Work* 27(5): 739–54.
Williams, J. B. W. and Lanigan, J. (1999) 'Practice Guidelines in Social Work: A Reply, or "Our Glass is Half Full" ', *Research on Social Work Practice* 9(3): 338–42.
Witkin, S. L. (1991) 'Empirical Clinical Practice: A Critical Analysis', *Social Work* 36: 158–65.
Witkin, S. L. (1996) 'If Empirical Practice is the Answer, Then What Is the Question?', *Social Work Research* 20(2): 69–75.
Witkin, S. L. (1999) 'Constructing Our Future', *Social Work* 44(1): 5–8.
Wodarski, J. S. and Thyer, B. A., eds (1998) *Handbook of Empirical Social Work Practice*, Vol. II: *Social Problems and Practice Issues*. New York: John Wiley & Sons.

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