

**SCHOLARSHIP IN SOCIAL WORK:  
IMPERFECT METHODS, APPROXIMATE TRUTHS, AND  
EMERGING CHALLENGES**

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**ABSTRACT**

No profession can be authoritative without dedicating substantial effort to scholarly inquiry. A profession must creatively generate knowledge related to the enduring and emerging problems of society. In universities and many other settings, social work professionals have a dual mission of generating and transmitting knowledge. This paper discusses the first of these missions. The paper focuses on the state of scholarship in social work, especially research scholarship. In successive sections, it defines scholarship, reviews competing philosophies of science related to knowledge development, assesses the state of social work scholarship, and posits challenges for strengthening scholarly inquiry in the profession.

## SCHOLARSHIP IN SOCIAL WORK: IMPERFECT METHODS, APPROXIMATE TRUTHS, AND EMERGING CHALLENGES

...being helpful is not enough to maintain professional status, it requires a scientific knowledge base to inform practice. Many people can perform helpful tasks without a scientific knowledge base: barbers, custodians, nurse aids, taxi drivers, mechanics, and the Maytag repair technician. So too can social workers. Yet being helpful, useful, and effective is not enough for a profession to establish itself firmly as a profession. (Lindsey & Kirk, 1992a, p. 377)

No profession can be authoritative without dedicating substantial effort to scholarly inquiry. A profession must creatively generate knowledge related to the enduring and emerging problems of society. In the comparatively short history of social work, Flexner (1915, p. 581) called the generation of a knowledge base that is "educationally communicable" one of the defining criteria of a profession and one of the critical shortcomings of social work. Even in professions that have deep roots in values, contribution to the collective knowledge base of society is necessary to achieve professional status, advance practice, and influence policy.

Social work subscribes to important values, and these values have served as a beacon in taking strong positions on social reform. Historically, the profession's roots are found more in the cause-focused reform movements of the street than in the libraries and laboratories of the university (Fraser, Taylor, Jackson, & O'Jack, 1991; Lee, 1929). In its policy statements, social work has consistently argued for social and health programs that are just, redistributive, and humane. But in a complex, multicultural society, the criteria for what is to be valued as good and preferable are not always clear. Lacking knowledge that one program or policy produces outcomes preferable to another, social workers are left with exhortation based on beliefs. When strongly held beliefs confront strongly held beliefs, arguments tend to won by invoking "superordinate values or [by] the use of power to enforce value supremacy" (Rosenthal, 1992, p. 44). If one considers both of these solutions to be flawed (i.e. finding mutually acceptable superordinate values is not easy and contestants in the marketplace of strongly-held beliefs rarely own power supremacy), an alternative is to make use of evidence, to conjoin applied knowledge with reform values in defining and seeking socially preferable policies, programs, and practice strategies.

Edith Abbot (1931), a pioneer in social work and social reform, so recognized the strategic value of scholarship and research-based knowledge that she once argued:

... without a competent understanding of statistics and other research methods [social workers] will not be able to understand the significance of their own work.... (p. 52)

If social work is to serve its reform and practice missions, scholarly inquiry and enterprise generative of knowledge should be central activities in the profession. As in education, medicine, nursing, and other professions, knowledge-building need not be a central activity in the day-to-day work of practitioners. But in training centers and in universities, it should be. In universities and many other settings, social work professionals have a dual mission of generating and transmitting knowledge. The purpose of this paper is to discuss the first of these missions. The paper will focus on the state of scholarship in social work, especially research scholarship. In successive sections, it will define scholarship, review competing philosophies of science related to knowledge development, assess the state of research scholarship, and posit challenges for strengthening scholarly inquiry in the profession.

### WHAT IS SCHOLARSHIP?

There are many types of scholarship. In a Carnegie Foundation report, Boyer (1990) described scholarship as having four elements: discovery, integration, application, and teaching. The first three elements are types of scholarly inquiry that involve alternative processes for generating knowledge. The fourth focuses on the dissemination of knowledge through teaching. For scholar/educators, however, the responsibility of "teaching" is broader than the conceptualization in Boyer report. It includes the transmission of knowledge to students and colleagues through face to face instruction such as in class room training and through writing such as in the publication of papers in journals. Transmission is a critical element in the knowledge generation process, for it is through students and colleagues that ideas are often refined and reformulated. For this paper, this broader conceptualization of teaching, where transmission is viewed as an integral step in a sequence of knowledge generation activities, will be used. Scholarship is defined as the disciplined process of discovering, integrating, applying, and transmitting knowledge.

#### Discovery

Discovering knowledge is fundamentally creative. It requires an environment that promotes free thinking, unconstrained by fear of retribution for unpopular ideas. It requires imagination, as in Prusinkiewicz's modeling of complex plant life forms by using simple rules indigenous to neural network technology (Waldrop, 1992a, 1992b). Or in Brian Arthur's work on "increasing returns" in economics (Arthur, 1990). Or in Stuart Kauffman's work on the origins of life (Kauffman, 1991, in press). It is both tied to the present and beyond it.

Consider for a moment, the ideas of Steven Hawking, the totally paralyzed British astrophysicist, who argued that black holes -- thought to attract everything and emit absolutely nothing -- give off radiation (Hawking, 1988). Many viewed this impossible by the sheer definition of a black hole. Hawking had little or no data. His "proof" was lodged in vast substantive knowledge and elegant mathematical equations that defied the understanding of all but a few other physicists. Now accepted, his discovery of what has become known as "Hawking radiation" was not happenstantial. Rather it was the result of years of work, of finely honed observation and thinking skills, and of an attitude preposterously nontraditional.

It is no accident that many discoveries are fully recognized year after the work that led to them. In his early attacks on Newtonian physics, Einstein was largely ignored. His Theory of General Relativity was so radically different for his time that, when he earned a Nobel Prize, it was given for his quantal explanation of the photoelectric effect. It was many years later that people realized that his truly major accomplishment was in totally reconceptualizing physics. It often takes decades to confirm discoveries, to test them inside and out.

The scholarship of discovery is creative, irreverent, skeptical, tedious, often rejected, and essential. More frequently than not, it repudiates prevailing wisdom, belief, and theory. Describing the scholarship of discovery, Boyer (1990, p. 18) argued that "the probing mind of the researcher is an incalculably vital asset to the academy and the world."

### Integration

The scholarship of integration is rooted in the connectedness of phenomena. Discovery in one domain often leads to discovery in another. Since its start, social work has relied on discoveries in many of the social and health sciences. In fact, doing research in social work has long required that the researcher be on the fringe of knowledge in many disciplines.

Rigorous work involves integrative activity, placing hypotheses in the context of other intellectual findings and other bodies of knowledge. Social work education is based on a two-year liberal arts foundation not just because practitioners need a broad understanding of human behavior and social conditions, but because disciplinary boundaries needlessly limit the way we give meaning to the new. For the same reason, many doctoral programs in social work require interdisciplinary studies. Integrative scholarship demands multi-disciplinary substantive expertise. It is the scholarship of making connections across disciplines, of locating findings in the context of broader social problems, and of giving meaning to discoveries in allied fields.

### Application

All professions and scholars within them have an obligation to apply their work to the problems of society and the world. Perhaps in no other area have universities failed so demonstrably as in the area of applied scholarship. Listen, for a moment, to one of the skeptics, Charles Sykes (1988), who wrote the book Prof Scam:

[Professors] are overpaid, grotesquely underworked, and architects of academia's vast empires of waste.... They insist that their obligations to research justify their flight from the college classroom despite the fact that fewer than one in ten ever makes any significant contribution to their field. Too many ... spend their time belaboring tiny slivers of knowledge, utterly without redeeming social value except as items on their resumes. (pp. 5-6)

This criticism has focused sharply both on the failure of university faculty to apply their scholarship to meaningful social problems and on faculty productivity in general. Listen also to Richard Huber (1992), an academic and former Dean:

The irony in faculty workloads is a presumption of roughly equal contributions confronting the reality of vastly unequal effort and results. The ideal assumption is that all professors in the faculty will contribute to knowledge and do so pretty much within a narrow range of achievement. The reality is that there are extreme differences within the same university in the published productivity of the faculty. (p. 31)

The public's wide-spread view that many professors work little and are paid too much is a function, in part, of the failure of many academics to translate their work into projects that demonstrate the value of scholarship. To be sure, specialization and sophistication make this difficult in many fields. However, if the academy is to serve society, it has to be more than

a worksite for an intellectual aristocracy. It must deal with the substantive problems of society.

When tenure and promotion decisions are made at universities, three criteria -- scholarship, teaching, and service -- are commonly considered. But service is frequently so poorly conceived that it comes to mean agency on university committees, community boards, and even faculty and student clubs. This misses the point.

Service is the scholarship of applying ideas in the community (Elman & Smock, 1985). It is an extension of the scholarly inquiry of the academy and should be consistent with the scholarship of discovery, integration, and transmission. One might argue that schools of social work have always been in the forefront of service. But it can also be argued that, when direct clinical practice and mere membership on community boards are defined as service, then social work too has missed the point. Service should apply, extend, and test scholarly activity in the community. It is the scholarship of application.

### Transmission

Finally, the scholarship of transmission involves both teaching and writing. Scholar-educators must be able to explain their findings and the findings of others so that the next generation of scholars and practitioners may build upon them. This means that they themselves must be students, constantly learning and integrating the work of others. It means, further, that they must publish their ideas for others, that they submit their work to colleagues for review. Publication may take many forms -- conference presentations, articles, or books -- but the central feature of publication is that a scholar's ideas are expressed in a disciplined, detailed fashion. Isolated discoveries such as cold fusion or, in child welfare, the development of family preservation services cannot be adequately tested and refined (or sometimes falsified) until scholars expose their findings to the criticism of other scholars and the community. Defined this way, the scholarship of transmission is the last link in a process of discovering, integrating, and applying knowledge. While the same people need not carry out each function, professions must be peopled with scholars, teachers, and practitioners whose commitment to each is disciplined.

### What is Research Scholarship?

If scholarship is hard to define, research scholarship is still more difficult to define. Is the work of theoretical physicists like Steven Hawking "research" scholarship? He collected no original data, but substantive expertise was required. Clearly, the work of others' was integrated into his ideas. His findings were applied in the sense that Hawking addressed critical questions, and they were transmitted.

There are no good algorithms for defining research. This is due, in part, to the diversity of methods that have given rise to important findings. Research should be defined in such a way as to include the scholarly activities of all scholars who systematically collect and analyze information, whether it is gathered in the archives of the library, from a storefront agency, from a 5th floor laboratory, from a telescope on a mountaintop, or from drug addicts in the back alleys of San Francisco.

The current definition of research in social work is functional. It identifies the purposes of social work research as (a) developing a conceptual framework, (b) generating a knowledge base, and (c) providing situation-specific data for practice (Reid, 1987, p. 474).

Although it approaches a tautology, research scholarship should be focused on these functions and defined by the use of research methods in scholarly inquiry.

If for no other reason than laying a common foundation for subsequent debate, research scholarship is defined here as disciplined scholarly activity that requires systematic collection and analysis of information. A comprehensive definition, this would include processes leading to the discovery, integration, application, and transmission of knowledge. To recognize the variety of methods used by scholars to contribute to the knowledge bases of society, it is characterized by use of an extant, systematic inquiry strategy, whether qualitative or quantitative. Distinguishing research from day-to-day thinking, from perusal of library stacks to seek out information on a topic, and from other common activities that draw the label "research," scientific research exacts organization, exhaustiveness, and awareness of errors from investigative processes. It is characterized by methodical analysis and vigilant skepticism.

#### PHILOSOPHY OF SCIENCE:

##### SPIRITED DEBATE ON THE NATURE OF RESEARCH SCHOLARSHIP

Like other forms of scholarship, research scholarship begins in philosophy, out of the world of data and design. It is here that all research methods manifest implicit and often-unexamined views of the cosmos and our relation to it. Research scholarship is driven by ontological, epistemological, and methodological assumptions about reality and the capacity of a scholar to be objective in the examination of phenomena. One cannot peruse the state of research scholarship in social work without first exploring the ontological, epistemological, and methodological issues that both underpin research enterprise and threaten to divide the profession (see, e.g., Brekke, 1986; Heineman Pieper, 1990; Orcutt, 1990; Reamer, 1993; Thyer, 1993; Tyson, 1992).

Ontologically, scholars ask what is the nature of reality? Does it exist "out there" beyond our own being and sentience? Is it driven by laws of nature, by laws of cause-and-effect? Ontology is the study of the nature of reality or the "knowable." On one end of the ontological spectrum are realists, and on the other end are relativists. Realists tend to believe that reality exists separate from perception and is organized according to causal laws (Guba, 1990). They are "deterministic" in the sense that the world is thought to be determined by organizing principles that provide order and predictability (see, e.g. Zimmerman, 1989). Relativists believe that reality is socially constructed. Reality is defined, they argue, by the social and contextual heritage of the beholder. Relativists are "nondeterministic." They hold that laws of nature, if they exist at all, are not the single foundation upon which phenomena can become known. Because they view reality as constructed through social processes of interaction with the environment, many relativists are known as "constructivists" (Gergen, 1988; Guba & Lincoln, 1989).<sup>1</sup>

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<sup>1</sup>In this paper, the term "constructivist" will be used to refer to many alternative perspectives and methods of inquiry that build from relativism. These include grounded theory, ethnography, ethnomethodology, phenomenology (including heurism and hermeneuticism), and other forms of naturalistic inquiry that rely on deeply personal involvement with phenomena under study.

Epistemologically, scholars ask what is the nature of our (the knower) relationship to the knowable? Can we be objective in the sense that the knower is a separate entity who observes the cosmos dispassionately? Epistemology is the study of the relationship between the inquirer and the knowable. Objective inquirers tend to believe that inquiry through observation and other removed methods -- e.g. paper and pencil tests -- can produce valid knowledge. Subjective inquirers argue that it is not possible to separate self from the knowable, and thus knowledge is the product of interaction between the researcher and the researched. No source of information is objective. Objectivity, they argue, is a deluded thought of early positivists (Guba, 1990).

Methodologically, scholars ask how should we go about discovering and applying knowledge? Methodology is the study of the means used to conduct an inquiry. Research methods range from randomized experiments to interpretive, hermeneutic, dialectical involvement with subjects. The purpose of the latter is often to identify common constructions across people in specific contexts. The constructivist approach is usually characterized as "qualitative." In contrast, the former is often associated with the manipulation of an independent variable (a service or treatment) and the quantification of measures. It is characterized as "quantitative."

Competing ontological, epistemological, and methodological perspectives in the profession are the grounds for widespread disagreement on the value of science in social work (Brekke, 1986; Heineman Pieper, 1990; Thyer, 1993; Tyson, 1992). These disagreements have led to a spirited debate over the validity of traditional scientific inquiry for advancing practice knowledge and serving the reform values of the profession. The debate has been both scholarly and, at times, vituperative (see, e.g., Blythe, 1992; Harrison, Hudson, & Thyer, 1992; Witkin, 1991, 1992a, 1992b).

The attitude that ontological, epistemological, and methodological differences are irreconcilable is a major obstacle in this dialogue. Reid (1991) has recently proposed that scholars focus on the compatibilities rather than the differences between philosophical positions. He (1991, pp. 29-30) argued that "differences between 'paradigms' underlying mainstream and qualitative approaches can either be accommodated or else ignored at the level of scientific inquiry.... Researchers are not bound by epistemological dicta." Work focusing on the compatibilities of competing positions is urgently needed. While logical positivism has been roundly, effectively, and justifiably attacked, few social workers appear to subscribe to it. At the same time, modern postpositivism has been poorly articulated. Toward accommodation, clarification, and compatibility, the next section of the paper discusses four elements of emergent postpositive science -- critical multiplism, critical realism, critical tradition, and critical community.

#### Elements of Postpositivism

Uncertainty. In the fallout from Werner Heisenberg's uncertainty principle (i.e. the future position of a particle cannot be precisely predicted, because the process of measuring it changes its velocity in unpredictable ways), prediction has become probabilistic rather than, in a Laplacian sense, deterministic (Heisenberg, 1958). Science has changed; the

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Across these perspectives, specific positions on relativism, epistemology, and methodology vary.



determinism of the late 19th and early 20th centuries has given way probabilistic thinking. Moreover, the recent emergence of chaos theory suggests that some phenomena may be entirely unpredictable, even in a probabilistic sense.

Modern science has come to be based on the ideas that truths are approximate and that methods are imperfect.<sup>2</sup> Methodological distrust runs deep in postpositivism. No single method or measure is viewed as having the capability of confirming or disconfirming a theory. However, the beliefs that methods are imperfect and that truths are approximate do not deter researchers from developing and using quantitative measures. A thermometer is used to measure temperature, even though scientists know that the temperature of the thermometer will affect in a fleeting way the temperature of a significantly larger thermal mass. A laser beam is fired off to Neptune, even though astronomers know that the laser beam will affect the path of Neptune in an immeasurably small way. These effects are predicted by the uncertainty principle, but they are often so minuscule that postpositivists are cautiously content with the outcome. Science has made impressive progress in the context of uncertainty.

The application of positivist philosophy to social phenomena has been long debated (see, e.g., Hayek, 1941a, 1941b, 1941c), and in the social sciences and social work, uncertainty has led to important methodological accommodations in sampling and data analysis (for a brief review, see Berk & Rossi, 1990, pp. 25-29). For example, it accelerated the now widespread practices of drawing probability samples and, in data analysis, of adjusting findings by the amount of error observed in a sample of observations. Findings are expressed as probabilities. This is one of the central ideas underpinning the use of statistics in social work research. Recent advances make statistical and mathematical modeling procedures far more useful in advancing practice knowledge: the development of statistics that employ time-varying covariates and outcomes (e.g. event history or "survival" models), the emergence of quite flexible procedures for plotting nonlinearities, and the rapid advancement of LISREL models that incorporate multiple measures and data sources.

Uncertainty has also given rise to a resurgence of interdisciplinary connectedness. Often knowledge is generated at the boundaries of disciplines. It is here that methods of inquiry are the most diverse. It is here too that the alternative theoretical perspectives associated with different disciplines and professions come into abrasive and creative contact. In the field of mental health, for example, it is common to employ a biological stress vulnerability model (see, e.g., Hogarty, Anderson, Reiss, Kornblith, Greenwald, Ulrich, Carter, & The Environmental-Personal Indicators in the Course of Schizophrenia Research Group, 1991; Tarrier & Barrowclough, 1990). Significant advances take place in the context of multidisciplinary teams where social workers, psychiatrists, biostatisticians, nurses, and psychologists contribute uniquely and collaboratively to research activities. The intellectual

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<sup>2</sup>The term "approximate truths" is borrowed from Thomas Weston (1977, 1987) who distinguishes the idea of "approximate truth" from relative and probabilistic truth, degree of confirmation, and degree of rational belief. The philosophical nuances of these competing concepts are important but beyond the scope of the paper. Interested readers are referred to Weston (1992).

action is at the periphery of many disciplines, where disciplinary boundaries are blurred and where integrative scholarship is required.

Critical multiplism. Based in part on uncertainty, modern postpositive science arose from ontological, epistemological, and methodological flaws in logical positivism. Its metatheory relies on "critical multiplism," the use of multiple methods of inquiry and sources of information. No single source is viewed as authoritative and foundational (Cook, 1985). In the social sciences, uncertainty is expressed in part as "reactivity" to measurement and the inquiry process itself. Enormous attention has been afforded measurement, alternative explanations, and error structures. Nonetheless, it is thought to be difficult to eliminate all reactivity and other sources of bias. While experiments obtain high regard, for example, the researcher must be sure that random assignment not only operates to produce equivalent groups (on known and unknown variables), but also that the assignment process and the delivery of an experimental service do not affect subjects in control conditions (Berk & Rossi, 1990). The latter are often assumed and rarely tested. Although experiments tend to rely on fewer untested assumptions than many other inquiry strategies (and continue to be regarded as a differentially tarnished "gold standard" by many), postpositive researchers rely on many different sources of information and inquiry strategies, each with presumably different sources of error.<sup>3</sup> In criminological measurement, for example, scholars often use self-reports of drug use, but they supplement self-report data with information from urinalyses and radioimmunoassay of hair (see, e.g., Mieczkowski, Landress, Newel, & Coletti, 1993). Ontologically, postpositivism is based on the belief that the world (and beyond) is never fully knowable or measurable. And the view that methods are imperfect in describing the world leads researchers, whether in the sciences or social work, to the self-critical use of a variety of means and measures.

Critical realism. In seeking multiple measures of phenomena, postpositivists subscribe to an objective, independent reality. From the perspective of "critical realism," reality is thought to be organized into understandable patterns with regions of patternlessness. The universe, postpositivists argue, is remarkably ordered, but within the order are areas of disturbance, chaos, and turmoil where no apparent order exists. If one adopts this perspective, the purpose of science is thus redefined "to formulate a set of laws that enables us to predict events only up to the limit set by the uncertainty principle" (Hawking, 1988, p. 166).

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<sup>3</sup>For a brief discussion of the "tarnished" internal and external validity of experiments in social work, see Reamer, 1993, pp. 138-141. Technically, pure gold will not tarnish. It is the copper alloy base in gold that is less than 24k that loses luster. While many regard experiments with random assignment as the standard by which other "less rigorous" designs are judged, others regard experiments as bearing "little resemblance to actual practice" and therefore as producing little or no useful knowledge for advancing practice (Rodwell, 1987). Debate over the validity of experimental findings as led to the tarnishing of the experimental gold standard.

Epistemologically, postpositivists seek objectivity as a regulatory ideal (Phillips, 1990a). Although complete objectivity is viewed as impossible to achieve, it remains a goal of scientific investigation (Brekke, 1986; Phillips, 1990b, p. 32). Multiple research methods are employed with the purpose of eliminating the biases of single methods (Mullen, 1985). Research design itself is conceptualized as the process of reducing biases. Objectivity is thought to be approximated by the intersubjectivity of multiple observations and sources (Rubin & Babbie, 1993).

Concern over objectivity has given rise to harsh analyses of and, some think, preoccupation with methodological errors in postpositive science. The validity of experimental and other findings is often challenged on the basis of methodological weaknesses and lack of control over alternative explanations. Though it may seem remote and erudite, methodological criticism occurs because postpositivists believe that objectivity eludes single methods.

Critical tradition and community. Knowledge is thought to emerge slowly from the decades-long process of replication that is central to the "critical tradition" and "critical community" of scientific enterprise (Phillips, 1990a). Critical tradition refers to the historical process through which knowledge is built successively (sometimes with lightning-like speed, but usually with painfully slow deliberation) by the replacement of old theories with new theories, while preserving some elements of the old theory (for a discussion of views on critical tradition, see Enfield, 1991). Critical community refers both to peer review and to the idea that competing theories (even paradigms) may exist concurrently. For that reason, multiple measures, multiple methods, and replication are central features of postpositivism (Cook, 1985; Phillips, 1990b). From the postpositivist perspective, both quantitative and qualitative methods of inquiry are justifiable and fully warranted. The Procrustean Bed of the logical positivists -- with single-minded focus on experimentalism and observation -- has slipped into obsolescence. A range of methods -- all viewed as imperfect -- are deployed to produce research findings which undergo constant revision and, at least in metatheory, approach truths asymptotically.

#### WHAT IS THE STATE OF SCHOLARSHIP IN SOCIAL WORK?

Aside from the discourse on our philosophy of science, one might seek more pedestrian indicators of the state of scholarship in social work. In a constructivist and postpositive sense, there is clearly no single authoritative source to which one might turn to ascertain the state of scholarship in the profession. In Katherine Wood's words, scholars must be polyocular (Wood, 1990). Thus, we must attempt to assess the profession through a variety of alternative lenses. These include analyses of the profession's literature, doctoral dissertations, and position statements on public policy; surveys of faculty members and graduates from social work doctoral programs; studies of curricula; and investigations into the composition, productivity, and decision-making of the editorial boards of journals in social work.

#### Research Methods Used by Social Workers

The social work literature. The social work literature is an amorphous collection of newsletters, journals, dissertations, and books. To date, no one has analyzed newsletters or

books written by social workers, and so the best indicators of the nature of the social work literature come from analyses of journal articles and dissertations. With the help of doctoral students, Glisson (1990) and Fraser (Fraser, Taylor, Jackson, & O'Jack, 1991) recently conducted a study of the research methods used by social work authors in 15 core social work journals published from 1985 to 1988. Glisson reviewed five social work journals (Journal of Social Service Research, Journal of Social Work Education, Social Service Review, Social Work, and Social Work Research & Abstracts) and Fraser et al. reviewed 10 journals (Social Work with Groups, Social Work in Education, Child and Adolescent Social Work Journal, Social Casework, Administration in Social Work, Social Work in Health Care, Child Welfare, Journal of Sociology and Social Welfare, and two allied journals -- Behavioral Research and Therapy and Journals of Gerontology). The aggregated sample was not exhaustive, but it included journals commonly identified in other analyses of the social work literature (Fraser, in press). The assessment process was laborious, requiring the reading of hundreds of articles and the scoring of sampling, measurement, and analytic strategies used by social work authors. Articles that manifested systematic data collection and analysis, whether qualitative or quantitative, were scored as "research-based" and carefully described.

Across both the Fraser et al. and Glisson studies, the findings confirmed and extended earlier studies of the literature (see, e.g., Tripodi, 1984; Tripodi, Fellin, & Meyer, 1969). Less than half the total articles were research based. Suggesting that logical positivist experimentalism scarcely exists within the profession, less than 6% of all research-based articles written by social workers employed an experimental design. Survey designs without probability sampling dominated. Although most research articles were quantitative in nature, there was little evidence of preoccupation with statistical analyses. Less than half of the research articles made use of multivariable statistical methods like multiple regression, MANOVA, or factor analysis. Most relied on simple counts and percentages. Finally, about 16% of the articles made use of qualitative methods. Based on this analysis -- and acknowledging that the sample was limited and that editorial policies of journals affect the characteristics of a profession's literature -- the authors concluded that there was little evidence of rigorous social work research from either a postpositivist or constructivist perspective.

Fraser (in press) recently augmented this analysis by reviewing 263 additional articles from three social work journals that were not in the original sample (Children and Youth Services Review, Clinical Social Work Journal, and Public Welfare). Combined with the original data, the enlarged findings shown in Table 1 compare the use of research methods across social work and non-social work authors.

Of 1104 articles written by social workers, 28.3% evidenced a systematic approach. In contrast, of 984 articles written by persons with other training, 76.7% evidenced a research base. On balance, the data suggest that articles by social workers are significantly more likely to be based on no apparent systematic method of inquiry.

TABLE 1  
 Authorship by Use of Research Methods in 13 Social Work Journals, 1985-1988

SOCIAL WORK AUTHORSHIP: Did the primary or secondary author hold an MSW or PhD/DSW in social work OR work in a social work setting?		RESEARCH BASED: Is there evidence of systematic data collection and/or data analysis?		
		YES	NO	Row Total
YES	Count Row Pct	312 28.3	792 71.7	1104 100.0
NO	Count Row Pct	755 76.7	229 23.3	984 100.0
Col Total		1067	1021	2088

$$\chi^2 = 489.0944, p < .001$$

Doctoral dissertations. The research methods used by doctoral students appear to be no stronger than those found in the social work literature, but systematic sampling and study of dissertations awaits greater attention. Boettcher (1992) reviewed 72 dissertation-based papers published by the Ohio State University National Symposia on Doctoral Research, 1985-1989. Of 869 dissertations completed in these years, papers from 214 were submitted to the Symposia, 103 were accepted for presentation, and 72 were published in proceedings. Boettcher's analysis of these 72 papers found that 8.3% of the dissertations employed a design with random assignment. Survey designs predominated. While most dissertations were realist in orientation, the methods used left authors vulnerable to a host of alternative explanations.

Literature in aggregate. If we are to make sense of these data in a comparative way, samples of social work dissertations and articles must be drawn and compared with dissertations and articles from other disciplines and professions. It is quite possible that the research methods used in the aggregate literatures of education, nursing, political science, public administration, and other fields are similar. Although it is not possible to conclude that research methods are significantly weaker than those used in other professions and disciplines, it is possible to draw three tentative conclusions. First, the methods used by social work authors who publish in the core social work literature are often based on no discernible systematic information collection and analysis strategy. Although there is clearly an important place for critical analyses, theoretical syntheses, social commentary, program descriptions, and other literary forms that are in the tradition of cause-focused social work, articles of this nature outnumber studies with systematic data collection and analysis. Second, when quantitative or qualitative systematic methods are used, they are often elementary and expose research scholarship to a host of alternative explanations. Third, the

methods used by social workers who publish in the core social work literature appear weaker than those used by non-social workers who publish in the same literature.

### The "Impact" of Social Work Scholarship

A recent study of the impact of the social work literature provides another view of scholarship in social work. Lindsey and Kirk (1992b) reviewed the number of times articles from 19 social work journals were cited subsequent to publication. Calling this an "impact" score, they found that, with the exception of articles in 5-6 journals (British Journal of Social Work, Social Work, Social Service Review, Social Work Research & Abstracts, Children and Youth Services Review, and Social Casework) much social work research goes relatively uncited. Whether this is because the scholarship is so weak that others disdain to cite it, whether it is simply never read, or whether some other factor is operating is unclear.

But once again comparison is critical if one is to make sense of such findings. Lindsey (1992) further compared the impact scores of a subsample of 18 core social work journals (the original 19 minus Urban Social Change Review) with impact scores from other disciplines and professions. The median impact score of social work journals (.26) was comparable to that of political science (.26) and medical journals (.29). Moreover, it was higher than impact scores of journals in aerospace (.14), agriculture (.23), engineering (.22), and public administration (.20). Conversely, it was lower than anthropology (.31), biochemistry (1.41), business (.37), chemistry (.56), computers (.45), economics (.36), education (.39), mathematics (.31), physics (.82), psychology (.34), sociology (.33), and zoology (.40) (Lindsey, 1992, p. 531). Thus, in the context of relatively low impact scores across many disciplines and professions, social work does not fare poorly.

### Use of Citations in the Profession's Public Policy Statements

A recent analysis of policy statements adopted by the National Association of Social Workers (NASW) Delegate Assembly provides yet an alternative perspective on the value of research knowledge in the profession. Summarized in Social Work Speaks (National Association of Social Workers, 1988), 48 different policy statements were reviewed for the use of proper documentation in support of knowledge statements. Passed over a 20 year period, the policy statements were designed to indicate the position of the profession on important national issues. Moreover, they were passed and published to provide unifying guidance to state NASW chapters in legislative advocacy. Rosenthal (1992) rated each statement on a four point scale of no documentation (bald assertions), vague documentation (general statements such as "the literature shows"), informal documentation (reference to data or a study, but the absence of a specific citation), or formal scholarly documentation. Although she found that nearly all position statements made use of knowledge, only 11 consistently employed scholarly bibliographic references without bald assertion. On the positive side, 20% (5 of 25) of the statements made prior to 1984 contained proper citation, while 26% (6 of 23) of those made from 1984 to 1987 made use of formal documentation. Moreover, bald assertions alone (and no higher level of documentation) were found in only 13% of the policy statements in the post-1983 period, while in earlier years 44% of the statements relied exclusively on unsupported declarations. Even though scholarly rigor

appears to have improved over the years, Rosenthal (1988, p. 44) concluded that "the social work profession in speaking to social policy does not appear ... to value highly objectively verified knowledge."

### Scholarly Productivity of Social Work Faculty Members

Surveys of faculty members provide another lens through which to assess research scholarship in the profession. These surveys reveal that many social work faculty are engaged in scholarly inquiry, but large numbers produce comparatively few scholarly reports that appear in peer-reviewed sources.

Green, Hutchison, and Sar (1990) analyzed total refereed journal articles for 932 graduates of social work doctoral programs who were holding faculty positions in schools of social work. In this academic sample, 20% had published no articles, 31.5% had published between 1-4 articles, 21.2% had published between 5-10 articles, 15.5% had published between 11-20 articles, and 11.7% had published 21 or more articles (Green et al., 1990, p. 28). Comparing these data to Ladd and Lipset's Survey of the American Professoriate (1978), a study of the scholarly productivity of 16,000 academics from dozens of different disciplines, Green et al. found that "social work academics have an 'unpublished' rate that is more than twice that of the 'unpublished' rate" for other disciplines (p. 29). Further, they (1990, p. 29) observed that the percentage of other faculty members "who report more than 20 published articles is almost three times the percentage of social work academics who report more than 20 career publications."

Bibliometric studies further suggest that scholarly publication varies significantly across schools. Using PsyLit and Sociofile CD-ROM data bases, Baker (in press) recently studied the publications of faculty members in schools with doctoral programs. Across 50 schools, the rate of publication between 1974 and 1989 varied from a high of 5.9 per faculty member (UC-Berkeley) to a low of .11 (Atlanta). Baker's findings were highly correlated with those of a similar study by Corcoran and Kirk (1990). Without further reviewing what is becoming an extensive literature, it appears that scholarly productivity is disproportionately distributed in the profession. This suggests that some social work students may never be exposed to teachers whose careers involve disciplined knowledge generation.

There is, however, yet another story to be found in these data. Curiously, a small core of scholars, perhaps 200 in all, produce at high rates comparable to other professions. Intriguingly, they appear to publish research reports in social work sources about as often as they publish reports in non-social work sources. Green and Bentley (in press) described the characteristics of 205 social work scholars who had published at least five articles in social work journals during the 1980s. Across their careers (the length of which varied by age at the time of the survey), the scholars had produced an average of 15 articles in social work journals and 11 articles in non-social work journals.

Although the presence of a core group of productive scholars is quite promising, their publishing pattern is a double-edged sword. On one hand, the social problems that the profession seeks to address are clearly interdisciplinary and the profession's scholarship deserves recognition beyond the narrow confines of the profession's literature. On the other hand, the pattern suggests that a significant proportion of the profession's scholarship never appears in the profession's main vehicles for knowledge transmission.

### Publication Patterns of Doctoral Graduates

Survey data from graduates of social work doctoral programs appear to confirm studies of the publications productivity of faculty members. Randomly sampling 350 of the 961 graduates of social work doctoral programs between 1960 and 1974, Abbott (1985) obtained a 50% response rate ( $n=175$ ) to a survey that focused on the relationship between research training and research productivity. Supplementing her self-report data with data from the Social Science Citation Index, she found that between 1960-75 graduates produced about one article every two years ( $M=.531$ ,  $SD=.702$ ), while in the long run of 1976-81, they had an annual productivity rate of one article every four years ( $M=.253$ ,  $SD=.417$ ). Overall, 39% produced no article in the 1960-75 post-graduate period, and 46% produced no article during the follow-up period that extended, for most, well past graduation. She concluded her analysis with a startling statement:

The very idea that the social work doctorate leads to research productivity should be questioned. (p. 17)

More recently, Green, Hutchison, and Sar (1990, p. 25) found that of the more than 1700 doctoral graduates who responded to a survey (about 64% of all doctoral graduates from 1960 to 1988), 47% had published no peer-reviewed articles. An annualized achievement rate was calculated by dividing each respondent's total number of publications by the number of years since graduation. On average, doctoral graduates produced .3 peer-reviewed papers per year in social work journals and .4 peer-reviewed papers per year in non-social work journals (Green et al., 1990, p. 37). As might be expected, published books and chapters were produced at a far lower rate. In their careers, average doctoral graduates publish 3.4 articles in social work journals and 3.4 articles in non-social work journals (Green, Hutchison, & Sar, 1992). There was slightly more variation in publication in non-social work journals, suggesting that some graduates are quite active in field of practice journals while many others are not. On balance, publication by the profession seems borne by about half of the graduates from doctoral programs.

That many social work doctoral graduates contribute little to knowledge building enterprise is supported also by a recent bibliometric analysis of journal articles written by doctoral graduates. Randomly sampling 10 graduates from doctoral programs that produced at least 6 graduates between 1970 and 1980, Baker and Wilson (in press) used the Source Index of the Social Science Citation Index to tally publications for the year of graduation and six years hence. On average, graduates produced 1.3 ( $SD=2$ ) articles, for an annual productivity score of .2 articles per year. Slightly less than half of the graduates (143 of 283) had no publications in the 25 journals covered by the Source Index. No differences were found by year of graduation, so by this measure, productivity did not increase in the 1970s.

How do these findings compare to other disciplines and professions? Braun, Glanzel, and Schubert (1990) used the Corporate Index of the Science Citation Index to assess the publication productivity of all first authors in science journals for the period 1981-1985. Shown in Table 2, they found that science publication productivity is badly skewed with 88.1% of 269,649 authors writing between 1-5 articles, 8.8% writing between 6-10 articles, and only 3.1% contributing 11 or more articles. Because they compared only first authors, these data cannot be directly compared with the available social work data. But if one takes



only doctoral graduates who have published at least one article in the Green et al. data (as shown in Table 2), they suggest that right skewness may be as pronounced in the sciences as it is social work.

TABLE 2  
Productivity of Authors who Published at least One Peer Reviewed Article

Total Articles Published	Green, Hutchison, & Sar (1990) Sample of Career Publications of Social Work Doctoral Graduates, 1960-1988		Braun, Glanzel, & Schubert (1990) Sample of First Authors from the <u>Science Citation Index</u> , 1981-1985
	Social Work Journal	Other Journal	Corporate Index Files
1 - 5	65.0%	71.3%	88.1%
6 - 10	18.7%	13.9%	8.8%
10+	16.3%	14.9%	3.1%

Also suggested in Table 2, a pattern found in faculty publications studies emerges. Close to 10% (146, 8.5%) of the graduates in the Green et al. study had published eleven or more articles in social work journals, and nearly 8% (132, 7.7%) had published eleven or more peer reviewed articles in journals outside of social work. As in surveys of faculty members, this suggests that the profession has a small core of prolific scholars whose productivity cannot be assessed accurately by examination of the social work literature alone. The growth of interdisciplinary doctoral programs in the 1980s may be affecting publishing patterns within the profession, for Green and his colleagues (1992) also found that recent doctoral graduates had directed relatively more research products to non-social work journals. This interdisciplinary pattern of publication is consistent with the growing importance of integrative scholarship.

#### Use of Research Scholarship by Practitioners

If only a fraction of doctoral-level social workers and social work faculty are involved in scholarly activity that culminates in publication, it appears to be comparably true that only a fraction of social work practitioners make direct use of the profession's scholarly and research literatures. Related to studies on the impact of social work journals, studies of the use of research by practitioners show that social workers rarely turn to the literature when confronted with a practice problem (see, e.g. Hopps & Gambrill, 1988; Ivanoff, 1990; Kirk, 1990; Kirk, Osmalov, & Fischer, 1976; Kirk & Penka, 1989; O'Hare, 1991; Penka & Kirk, 1991; Schilling, 1990; Schilling, Schinke, & Gilchrist, 1985; Task Force on Social Work Research, 1991; Thyer, 1991). Moreover, a minority of social work practitioners --

something less than 40% -- engage in research-based activities, when research is defined as the systematic use of rating forms, questionnaires, single-subject or other designs, or statistical techniques (Penka & Kirk, 1991; Richey, Blythe, & Berlin, 1987; Yegidis, 1993). But these are not new findings and they confront education, public administration, nursing, and many other professions (see, e.g., Kirk, 1979).

To hold out expectations that practitioners will become clinical scientists or practitioner-scientists may ignore fundamental limitations in agency practice. Further, it may even be romantically simplistic to expect practitioners to read, digest, and apply raw research findings to their work (see, e.g., Schilling, Schinke, & Gilchrist, 1985). Increasingly, scholars are coming to realize that intervening steps are required if practitioners are to make use of research findings. The processes of knowledge dissemination and research utilization are far more esoteric than once thought. On balance, there is growing evidence that practitioners understand some major research findings, although they may not be able to cite specific studies and methodologies in ways that academics might like (Kirk, 1990). Moreover, in the sense that much theory and many interventive models are rules of thumb condensed from research findings, practitioners who use theory and who practice from the perspective of treatment models clearly use research indirectly (Reid & Fortune, 1992). That practitioners rely on translations of basic research findings through theory and interventive models is not necessarily bad. Similarly, that they learn from classroom instruction, in-service training, supervision, newsletters, conference presentations, popular literature, and word-of-mouth need not be considered a professional shortcoming. Rather this emerging recognition that research utilization is itself a complicated process argues for giving redoubled attention both to research curricula in social work education and to the related scholarships of application and transmission.

#### Research Curricula in Masters and Doctoral Programs

Research on masters and doctoral curricula provides yet another lens through which to assess the importance of scholarly investigation in the profession. Fraser, Lewis, & Norman (1990) conducted a survey of the chairs of all MSW research sequences (or the equivalent) in 1987. The chairs were asked to rate the degree to which 25 different research content areas were taught. Based on a taxonomy of knowledge developed by Bloom (1956) and Gronlund (1982), the survey used a rating scale of not taught (0), taught for awareness only (1), taught for comprehension (2), taught for application (3), and taught for mastery (4). Application and mastery were viewed as skills-based instructional objectives. They were included for, at the time, CSWE Curriculum Guidelines called for the training of social work students in skills to evaluate their personal practice. In addition to course ratings, characteristics of research sequences and schools were used to identify the correlates of research content.

Across the nation, MSW programs required an average of 6.4 semester hours (or 9.6 quarter hours) of research training, including a research project or thesis. Only 15 schools required practicum-based research projects. Overall, schools with larger MSW programs provided significantly less research content. Beyond basic content (e.g. formulating a research problem and question, discussing elementary data collection and analysis), it was "difficult to identify content that (was) taught at the skill level" (1990, p. 90). Although some variation was observed and a dozen schools were found to have significantly more

rigorous research curricula, the average MSW program appeared to make no concerted attempt to train students to evaluate social work practice (Fraser & Lewis, in press).

Using a similar method, Fraser, Jenson, and Lewis (1991) recently conducted a survey of social work doctoral programs. The directors from the nation's 47 active Ph.D. or D.S.W. programs were interviewed and asked to rate the content of their program's research course work across 35 different areas. In addition, course materials (program policy manuals and bulletins) were analyzed. Within the 47 programs, Fraser et al. found 54 separate tracks of study with distinctly different research requirements. These 54 tracks or programs were declared to be the unit of analysis.

Across the tracks, two kinds of programs were found (Jenson, Fraser, & Lewis, 1991). Fifteen tracks of study appeared to place major emphasis on research scholarship, while the remaining 39 tracks focused more broadly on leadership for direct practice, teaching, and agency administration. Based on a content analysis of program materials and director's ratings of course content, "teaching for comprehension with modest application" was found to predominate across all programs (Fraser et al., 1991, p. 603). But in schools with program tracks that emphasized research scholarship, faculty and students were significantly more involved in research activities. About half of the students in these programs were actively involved in research that was not associated with course requirements or a dissertation. Approximately 41% of the course work in these programs was dedicated to research content, while in other programs 33% was dedicated to research content. The research track programs also were smaller, admitting fewer students and providing students with significantly more RA- and TA-ship support. Thus, in programs with greater emphasis on research scholarship, students seemed to be more immersed in a school culture that afforded more formal and informal opportunities for scholarly inquiry.

In comparing programs across the nation, Fraser et al. concluded:

...the course content and cultures of most programs lack the breadth to support intensive training in research. Many schools are overextending available faculty and fiscal resources. They do not provide the kind of hands-on, skills-focused training that is widely acknowledged to be required for research scholarship. (p. 609)

#### Editorial Policies and Boards of Social Work Journals

Lastly, investigations into the composition, productivity, and decision-making of social work editorial boards provide a final perspective on scholarship. In a controversial study, Epstein (1990) submitted a contrived paper in two versions -- one with positive findings and one with negative findings -- to 146 social work and allied journals. He received responses from 80 social work and 30 allied journals. Twelve of the allied journals found the article relevant and reviewed it, while 33 of the social work journals found it relevant and conducted a review. Others failed to respond or declined review the manuscript (for a variety of reasons, including discovery that it was plagiarized). Epstein's quantitative analysis focused on differential acceptance rates by journal auspices (social work versus allied) and by the nature of the findings (positive or negative). He found no significant effect.

His qualitative analysis is perhaps more intriguing, for he compared the comments made by social work and allied reviewers. Not only were the reviews by social work journals shorter than those of allied journals, but they were less substantive and missed

important methodological flaws in the manuscript (e.g. the absence of a control condition). In a sharply worded conclusion, Epstein (1990) argued:

Comparison of the social work reviews both to common expectations for scientific quality and to the best reviews from the "allied" journals challenge claims for the scientific authority of the field. Referee reviews from prestigious as well as nonprestigious social work journals were not knowledgeable, scientifically astute, or objective. (pp. 24-25)

Questions about the influence and competence of the editorial boards of social work journals have been raised also by recent analyses of the scholarly productivity of board members themselves. Using the Social Science Citation Index, Pardeck (1992) compared the publications productivity of board members from five prominent social work and five prominent psychology journals. The median number of citations for social work board members ranged from 1 to 8; while for psychology board members, it ranged from 5 to 83. Pardeck concluded:

It is difficult to see how the historically weak knowledge base of social work can be improved if those who serve as gatekeepers to the profession's scholarly journals are not themselves active contributors to this process. (p. 494)

Extending this analysis with 18 additional social work journals, Lindsey (1992, p. 517) found that "journals in social work have fewer highly cited board members than journals in psychology." However, as reported earlier, he found that many social work journals have impact scores that are comparable to other disciplines. While scholarly productivity is surely fundamental to appointment to an editorial board, the profession's journals serve practitioners and academics. Thus board composition, he and others argued, should insure diverse representation (see, e.g., Fortune, 1992; Reamer, 1992).

But to conclude here would be premature. In a further analysis, Lindsey showed that the correlation between the scholarly productivity of board members and the impact of a journal is high. Journals that had greater influence -- that were more cited -- had significantly more distinguished editorial boards. He (1992, p. 520) argued that there is a "strong association between the distinction and achievements of the editorial board members and the impact of the journal." Thus, if the profession is to place greater focus on knowledge generation and if its scholarship is to be transmitted more widely, greater emphasis upon the scholarly distinction of editorial board members and the precision of their comments in reviews of manuscripts could serve social work.

#### THE STATE OF SCHOLARSHIP IN SOCIAL WORK

Many have called this state of affairs a "crisis" (Task Force on Social Work Research, 1991). But to be a crisis, the conditions that have been described should have arisen suddenly. They have not. The term "crisis" has been used in literary sense to stimulate action. In fact, the current state is the result of years of relatively little action (in part because the problems are not easily addressed), a public policy environment -- of some 13 years -- that has been hostile to scholarly inquiry (especially in the area of social welfare), and a host of factors such as the failure of research curricula to keep pace with the growth of research methodology (both quantitative and qualitative). No single factor is responsible. In part, each explains the state of scholarship in social work.

This "crisis" is complicated by a resurgence of emphasis on teaching in higher education and widespread criticism of emphasis on research in universities. In many disciplines, teaching has been neglected and research has been exalted. Professors have had little direct student contact. Introductory courses have been taught by teaching assistants who scarcely speak English. Indirect costs have been abused. Research scholars have arrogantly pursued their own investigations without addressing community problems. Moreover, suggesting that pressure for research productivity has exceeded reason, incidents involving falsified data and plagiarism have grown in number. At the same time, large-scale research projects such as the artificial heart project, cold fusion, and the Hubble Space Telescope have produced large-scale failures. In short, research universities have produced spectacular discoveries and spectacular flops.

Conditions in social work, however, are quite different. Social work has valued teaching. Professors have close and positive relationships with their students. Social work schools are deeply involved in addressing social problems. Most social work research is applied, taking place in the community rather than the laboratory.

As opposed to the sciences, the profession suffers not from a plethora of emphasis on scholarly productivity but from a dearth of emphasis on it (Task Force on Social Work Research, 1991). At the MSW level, emphasis on training for advanced practice has had the untoward result of limiting the profession's capacity to develop its own body of knowledge. And like education, nursing, and psychology, course content on research methods has languished, falling behind methodological and substantive advances (Fraser, Jenson, & Lewis, in press). This is especially true in training students to use rigorous qualitative methods and advanced multivariate statistical procedures. Thus, whether the current state is conceptualized as a crisis or not, social work is faced with several important challenges.

#### Challenge #1: Methodological Pluralism in the Context of Epistemological Disagreement

The first challenge is both methodological and epistemological. Are there some common principles to which most, but probably not all, social work scholars can agree? Do we need to articulate a fully unifying philosophy of science? If we do (and some might argue that we need a unifying perspective in order to make critical decisions about research guidelines in the CSWE Curriculum Policy Statement), can we start by agreeing -- as advocates of alternative perspectives and postpositivists have argued for many years -- that multiple methods are warranted in the face of uncertainty?

At the discovery, integration, and application levels of scholarly investigation, methodological pluralism is warranted and broadly -- though differentially -- supported (see, e.g., Berlin, 1990; Ivanoff, Robinson, & Blythe, 1987; Reamer, 1993; Reid, 1993; Rodwell, 1987; Wood, 1990). On balance, both sides of the tendentious debate on epistemology admit that methods are imperfect and that there is no single authoritative foundation. Both sides reject determinism. Regardless of persuasion, most scholars also reject the absolute relativism of the Flat World Problem ("I perceive the world as flat, and therefore it is flat."). Many agree that truth is not entirely knowable. The sides -- if they can be discretized into opposing forces -- differ in that the postpositivist seeks objectivity as a regulatory ideal, knowing that it cannot be achieved. In contrast, constructivists view such a search as futile and misguided. In the spirit of critical community, these are the sort of differences that should characterize an intellectually vital profession. Social work's increasing

epistemological and methodological diversity suggests that future scholarship may be characterized by detailed, near-literary inquiry into individual differences as well as more traditional inquiry into group differences. If it occurs, this will be an important development.

But short of willy-nilly acceptance of any method of inquiry, scholarly inquiry of two sorts is needed. First, in the tradition of the humanities, work is needed in clarifying, communicating, and applying the basic principles of postpositivism to social work research. While a social work scholars few defend logical positivism per se (for an exception, see, Thyer, 1993), postpositivism has been poorly developed and widely misrepresented. In the academy at large and in social work, methodological and epistemological elaboration of postpositivism is needed. From a postpositive perspective, does there continue to be a hierarchy of research designs? If so, where do complex mathematical proofs, for example, fit into the hierarchy of design? Where do simulations and modeling such as those done with neural networks fit? If time-varying explanatory and dependent variables can now be modeled, where does longitudinal research fit relative to experimental research? And, methodologically, how can postpositivists better attend to the environment-system variables that Heineman Pieper (1990), Tyson (1992), Witkin (1991), and others argue confound many research studies?

Second, greater methodological specification is needed in ethnography, naturalistic inquiry, and other qualitative methods. While the implication of uncertainty is that all methods are flawed, they are not equivalently flawed. Some are less flawed than others. Whether qualitative or quantitative, initial research decisions made about the nature, number, and timing of data collection always lead to limitations. These decisions are laden with implicit and explicit theory, values, and assumptions that reduce the world to the pragmatics of research methodology.

Among the next steps to be taken by qualitative researchers is the specification of clearer methods and "goodness" criteria for evaluating them (Fortune, 1990). Criteria for valuing the rigor of qualitative methods are necessary if we are to place qualitative findings in the context of findings from other studies. It is not yet apparent that the products of scholars who subscribe to alternative paradigms and methods are characterized by any less error or are vulnerable to any fewer alternative explanations than the products of scholars in positivist traditions (see, e.g., Wakefield, 1993). While criteria for alternative methods are beginning to emerge (see, e.g., Marshall, 1990; Miller & Fredericks, 1991; Morse, 1993; Smith, 1990; Strauss & Corbin, 1990), they often rely as much on the sheer believability of the findings as on the comparative credibility of the design. Given a similar question, are all qualitative research studies and methods of equal value and merit? If one rejects absolute relativism, the answer must be "No."

#### Challenge #2: Research Training

The second challenge that the profession faces is in research training. As opposed to a discipline, a profession must prepare students for practice. But in the spirit of Flexner's charge, it must also generate knowledge. Professional training is a complicated mission, for it is not appropriate to assume that all or even most students will be scholars. The content of M.S.W. training is and should be focused on preparation for practice.

In this context, the challenge is quite difficult: Can we develop a continuum of education in research training that prepares practitioners for practice and, at the same time, prepares some students to be future scholars who will contribute to the generation of knowledge? The data are clear. Research training in the current educational structure is elementary, redundant, and divorced from practice (Fraser, Jenson, & Lewis, in press).

To serve the profession's knowledge generation mission, to better prepare practitioners to use research, and to more effectively address social reforms, stronger methodological training is needed at the masters, doctoral, and post-doctoral levels (see, e.g., Task Force on Quality, 1993). Doctoral programs can no longer be the profession's sole repository of training for scholarly investigation. There is too much to teach -- both qualitative and quantitative -- for serious research content to be relegated to two years of pre-candidacy course work plus a third year of dissertation studies.

A continuum of research training that builds upon our knowledge of social work practice is needed. We know, for example, that human behavior is nonlinear, multidimensional, and adaptive. Interventions have a host of anticipated and unanticipated proximal and distal effects. Tiny changes in initial conditions can produce large differences in outcomes. When conditions are right (and defining these conditions is a major challenge), small effects do not decay, but rather they accelerate into large changes. Refined measurement and data analysis strategies of much greater complexity -- e.g. the taking of event histories or the use of ethnography to understand the impact of intervention on daily happenings in people's lives -- must be employed, if we are to strengthen research scholarship in the profession. And the learning of these cannot take place entirely in the short course of doctoral study. A sequenced continuum of research training is needed from liberal arts preparation through doctoral training.

Several lines of inquiry could provide important clues as to how to educate practitioners and scholars for the coming years. Studies are needed in:

- Identifying the specific aspects of a liberal arts education that lead both to research-based practice and disciplined scholarship (not necessarily conjoined in the same person),
- Developing and testing skills focused research and practice education strategies at all educational levels, and
- Designing and evaluating new, innovative educational structures that promote continuity, depth, and application in research training, e.g. joint MSW/PhD programs that permit students to move into research training early in their professional education (see, e.g., Lindsey & Kirk, 1992a).

### Challenge #3: Scholarly Productivity

The third challenge relates to the scholarly productivity of the faculties of schools of social work and the graduates from social work doctoral programs. There are several bright spots in the research. The profession has a small core of at least 200 productive scholars. Overall, about half of the profession's doctoral graduates contribute to the literature. Across schools of social work, about a dozen MSW and doctoral programs serve the mission of knowledge generation with rigor. And 5-6 social work journals have impact scores that exceed those of average scores in medicine and many other professions.

The central question is: Can we develop cultures of scholarship in more of our schools of social work? In many schools, emphasis on teaching and community service has the unintended consequence of relegating scholarship to third priority. In day-to-day activities, scholarship takes place around the edges of teaching, student advisement, field liaison, and community meetings. Unlike the sciences, social work does not suffer from large numbers of faculty whose research activities are so intense that teaching and service are neglected. Across more than 400 BSW, 100 MSW, and 50 doctoral programs in social work, relatively few faculty contribute consistently to the literature. The Green et al. data suggest that social work faculty are not as involved in scholarly investigations as their colleagues on campus. If true, this may be a function of work environment as much as temperament, for schools have rarely embraced scholarship with the enthusiasm of Edith Abbott. This is evidenced not just in the publication rates of faculty members but in the way that masters and doctoral level research curricula are structured and in the research methods found in the social work literature.

The creation of scholarly cultures in more schools of social work remains as an unfulfilled challenge. Curiously, the founding of such cultures may itself be a nonlinear process. Faculties that have two or three scholars merely have two or three professors who work on their separate projects and who publish relatively regularly. But faculties with five or six or more scholars begin to reach a critical mass in which excitement about knowledge generation and cross-fertilization of findings permeates a school culture. There is a threshold effect. It is at this point that a scholarly culture is born.

Because the profession's research resources are so limited and because schools of social work serve many different purposes, several lines of inquiry are important in creating environmental incentives for scholarly involvement and productivity.

- First, ways must be found to increase the tangible and social rewards for research involvement (Corcoran, Robbins, Hepler, & Magner, 1987). Incentive systems that involve direct payment and release time for grant proposals, indirect cost recovery programs (such that, say, 5% of indirect costs are returned to the Principal Investigator), and salary supplements for research scholarship (such that faculty might be able to augment their incomes by, say, 10% for the duration of a grant) warrant greater exploration (Wodarski, 1991a, 1991b).
- Second, ways must be found to measure and vary faculty work loads by scholarly involvement. A small body of research indicates that reducing the work loads of faculty who are not active scholars rarely leads to greater productivity (Huber, 1992; Yuker, 1984). If this is so, increasing scholarly productivity by providing course load reductions will not yield greater productivity and will place a proportionally greater burden on other faculty. Other strategies are needed.
- Third, in retention, tenure, and promotion decisions in schools of social work, ways must be found to reconceptualize "service" as the application of scholarly inquiry in the community. In clinical settings, faculty who need to maintain licensure might be involved in the development, delivery, and study of innovative services. Qualitative analyses of interventive processes and outcomes are widely acknowledged as needed, but the literature



to date contains few such studies. Using their clinical skills, clinical faculty who are not inclined toward more traditional studies (including single-subject designs) might begin to develop this literature. In agency administration, faculty might apply new management strategies, lead systematic planning activities, conduct program evaluations, or survey consumers to determine service needs. In all settings, they should be involved in the scholarship of application, in the systematic analysis and refinement of practice.

#### Challenge #4: Knowledge Transmission

The fourth challenge is at least as difficult and possibly more difficult than the others. In the context of placing greater emphasis on scholarly productivity per se, schools and the profession need to concomitantly address the scholarship of transmission. Our growing understanding of the complexities of research utilization plus the need to strengthen social work's critical community point to the centrality of the scholarship of transmission in practice, education, and research. Multiple questions arise if the profession is to place greater value on transmission, both scholarly writing and teaching. Can we develop journals with sufficient research focus and readership to entice social work research scholars to publish their major findings in them? Can we devise ways to systematically identify and reward master teachers? Can we better infuse teaching with the findings from research scholarship?

Several lines of inquiry are important if scholarship of transmission and the concept of critical community are to be strengthened. First, research is needed to elucidate the processes of research utilization (see, e.g., Grasso & Epstein, 1992). We need to seek answers to such questions as: To what degree do practitioners use research indirectly through theory and interventive models? Under what learning circumstances are practitioners likely to change their practice? Do qualitative methods obtain any higher actual use in practice than traditional group and single-subject studies? How can we teach all research methods better?

Second, in education itself, work is needed to identify and develop criteria for measuring teaching performance. Faculty members who are not actively engaged in scholarship are not ipso facto master teachers. Just as universities have criteria for scholarly productivity, criteria for effective teaching must be developed. The skills that make a good teacher are not necessarily the same as the skills that make a good scholar-researcher. A good teacher has broad, current knowledge and makes connections between bodies of literature. She does not dwell at length on minute detail. Good teachers get excited, so excited that their enthusiasm spreads to students. Good teachers are readily accessible to students, in their offices with their doors open. The scholar-researcher is usually less accessible to students, working at home, at "hide-aways," in the field, or behind closed office doors. Although highly productive scholars who are truly excellent teachers are found on all campuses, they do not abound (see, e.g., Webster, 1985). And, in spite of the rhetoric that excellent teaching is associated with productive scholarship, this is a partial truism. While it may be somewhat higher in the social sciences, the correlation is on the order of  $+ .12$  across all disciplines (Feldman, 1987). Though teaching and research scholarship are adjoined in academia, they require different skills and attitudes. They are neither highly positively nor highly negatively correlated. At a minimum, one does not

significantly detract from the other, and both are necessary to strengthen the scholarship of transmission.

Third, the data suggest that some of the profession's best scholarship does not appear in the core social work literature (e.g., Fraser, in press). Important social work scholarship neither contributes nor is subject to social work's critical community. The recent development of journals such as Research on Social Work Practice is quite promising. But in general, work is needed on creating mechanisms for integrating scholarly findings with existing practice theory, with interventive models, and with knowledge from other disciplines. If social work is to be a profession whose literature is richly scholarly and relevant to practice, many ways must be found to transform raw research findings into practice principles and interventive models, while at the same time expanding mechanisms for the transmission of research itself.

#### CONCLUSION

If the profession is to be more generative in discovering, integrating, applying, and transmitting knowledge, greater continuity in valuing scholarship in its curricula, journals, and personnel practices will be needed. The growth of interdisciplinary doctoral programs in the 1980s, the presence of a core group of highly productive scholars, the comparative import of a half dozen social work journals, the increasing methodological diversity represented in the debate on epistemology, the scholarly cultures of perhaps a dozen schools, and the resurgence of emphasis on teaching excellence lay a foundation for the expansion of the profession's knowledge base. In the context of uncertainty, deep disagreement, and growing diversity, a central challenge that we face is to strengthen the profession's scholarship so that it better serves our reform and practice missions.

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