INTRODUCTION

Pushing on the Methodological Boundaries

The Growing Need for Emergent Methods within and across the Disciplines

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"Come to the edge," he said.
They said, "We are afraid."
"Come to the edge," he said.
They came.
He pushed them.
And they flew.
—APOLLINAIRE (as quoted in Eisner, 1997)

Within a rapidly changing and globalizing world, amidst social progress and change, as well as theoretical developments in multiple traditions both within and across disciplines, new research questions are being posed or reexamined. In order to answer these new questions and reexplore some old ones with our new insights and within our new and fluid context, new methods for gathering the data necessary for answering research questions have developed, as well as strategies for representing research findings. Emergent research methods have sprung forth as a result of where we have been, where we are, and where we envision ourselves going in the future. Research methods help illuminate something about social life. As noted feminist philosopher Sandra Harding (1987) explains, methods are techniques for gathering evidence. In other words, methods exist in order to service research ques-

tions that advance our understanding of the social world or some aspect of it. Therefore, as the social world and our understanding of it have progressed, so too has our repertoire of social research methods.

There is the illusion of a unity of knowledge within the disciplines, yet also an increasing acknowledgment of the "transgressive" quality of disciplinary knowledge:

> Nobody has anywhere succeeded for very long in containing knowledge. Knowledge seeps through institutions and structures like water through the pores of a membrane. Knowledge seeps in both directions, from science to society as well as from society to science. It seeps through institutions and from academia to and from the outside world. Transdisciplinarity is therefore about transgressing boundaries. Institutions still exist and have a function. Disciplines still exist and new ones arise continuously from interdisciplinary work. (Nowotny, 2007)

Interdisciplinary research provides an opportunity for researchers to think outside disciplinary boundaries (Hesse-Biber, Gilmartin, & Lydenberg, 1999; Kitch, 2007; Nowotny, Scott, & Gibbons, 2001). Emergent interdisciplinary models for conducting research that often reside both inside and outside traditional academic institutions such as research centers, institutes, and laboratories provide "contact methodological zones" for the raising of new research questions. These sites provide fertile ground for the development of new paradigmatic structures that will demand the necessity of emergent tools.

Philosopher Thomas Kuhn's concept of "paradigm" best describes the shifting nature of knowledge building. In his book *The Structure of Scientific Revolutions* (1970) he suggests that science, at any given historical moment, is framed by a particular paradigm or worldview. Turbulent paradigmatic shifts do occur within and across the disciplines. Paradigms are models of knowledge building that provide templates for studying social reality. They consist of the basic concepts and ideas by which a given discipline views the world. Kuhn notes that knowledge is shaped through the acknowledged dominant paradigm of every field of study. A paradigmatic shift in a given discipline, for example, can often create hybrid methodologies that begin to modify traditional disciplinary methods or even create innovative methods, all of which push not only the methodological borders of disciplines but also the paradigmatic borders. The practice of reevaluating traditional methods and generating new ones involves creativity, risk taking, and intuition. In this vein, consider the work of Chinese painter Lu Ch'ai, who in 1701 wrote in *The Tao of Painting* as follows:

> Some set great value on method, while others pride themselves on dispensing with method. To be without method is deplorable, but to depend on method [is] entirely worse. You must first learn to observe the rules faithfully; afterwards modify them according to your intelligence and capacity. The end of all method is to have no method. (as quoted in Janesick, 2001, p. 532)

Working with emergent methods is not about abandoning our disciplinary training but rather taking that training, adapting it, applying it, modifying it, and working beyond it as appropriate with respect to our research objectives.

Emergent methods are flexible; they can comprise qualitative methods or quantitative methods or a combination of these two types of methods. Emergent methods stress the interconnections between *epistemology*, who can know and what can be known; *methodology*, theoretical perspectives and research procedures that emanate from a given epistemology; and *method*, the specific techniques utilized to study a given research problem.

We can think of *methodology* as the bridge that brings epistemology and method together. In other words, methodology links epistemology and method, serving as the theoretical (defining the type of research problem) and procedural (defining how

the research process should proceed, what methods to select, and how they are employed to get at the research problem) link between the two. A methodology can be modified during the research process to the extent to which a researcher's epistemological beliefs allow for revisions. As will be seen throughout many of the chapters in this *Handbook*, emergent methods typically require the researcher to remain flexible and open to modifications. In fact, emergent methods are often discovered as a result of modifying more conventional research projects when traditional methods fail to "get at" the aspect of social life the researcher is interested in. Consider Figure 1.

Figure 1 depicts what we perceive to be a cyclical process of methods innovation. Within a complex turbulent environment with multidirectional social, political, economic, technological, and academic forces in play, there is a general trend we can note. Social change, such as that brought about by such justice movements as the civil rights and women's movements, promotes theoretical and methodological innovation. We can also note, in Part III of this *Handbook*, that technological innovations also provide the impetus for asking new questions and revealing new realities. In other words, theory/methodology is often shaped by social, political, economic, and technological con-

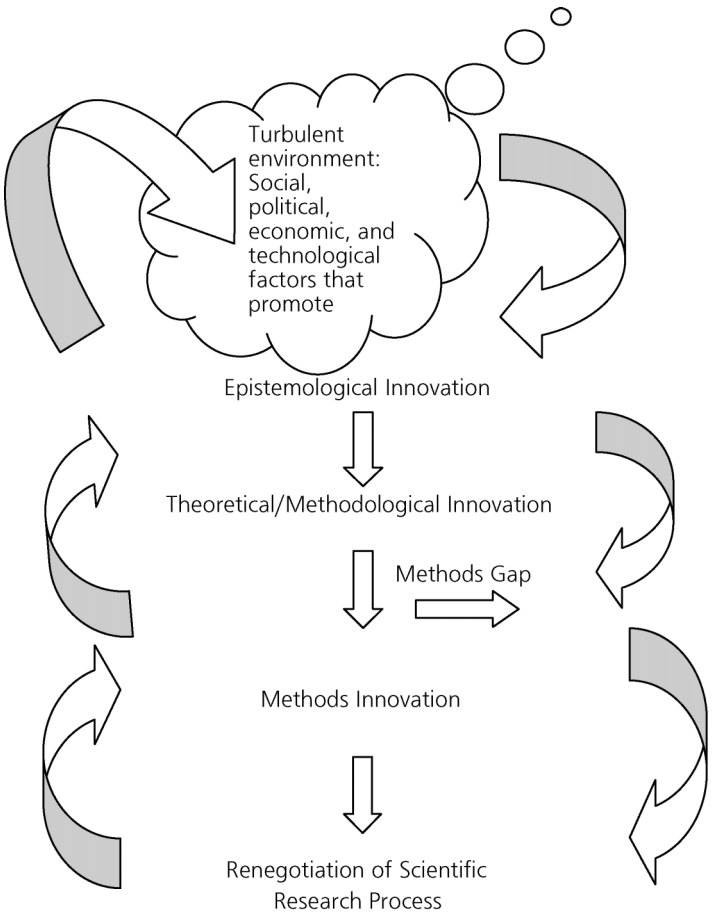

FIGURE 1. The emergent methods process.

texts that often drive methods innovation. As new theoretical and methodological perspectives emerge, a "methods gap" may occur. Therefore, methods innovations emerge in order to meet the insights and challenges posed by new theories. This is the point at which the "scientific landscape" changes—when paradigms experience ruptures, shifts, and revisions. Methods innovation drives a public renegotiation of "scientific standards" of assessment, validity, and other criteria by which knowledge is judged.

Researchers who utilize an emergent method may simultaneously find that they are negotiating both an "insider" and "outsider" researcher identity. As researchers, they are insiders, given their familiarity with the research process, yet the questions they now raise about what seemed familiar are now novel, and the methods tools they employ are not familiar. Their researcher positionality suddenly shifts, and they become explorers, outsiders who pose new research questions with unfamiliar research techniques. Trinh T. Minh-ha expresses this concept of multiple subjectivities as follows:

> Working right at the limits of several categories and approaches means that one is neither entirely inside or outside. One has to push one's work as far as one can go: to the borderlines, where one never stops, walking on the edges, incurring constantly the risk of falling off one side or the other side of the limit while undoing, redoing, modifying this limit. (1991, p. 218)

To successfully work with emergent questions and methods, a researcher often confronts a set of conundrums: How tied am I to the research techniques and ideas of my specific discipline? How committed am to I to my discipline's concepts and methods? If I were to experience conflict or tensions in my attempts to utilize a multidisciplinary or interdisciplinary position, how would I resolve them? How will I negotiate my research position—as an "insider," an "outsider," or both? If I conduct my research as an "outsider," will I be overly identifying with the other's perspective? If I conduct my research as an "insider," will I lose my ability to challenge my disciplinary perspective? These are a sample of the questions a researcher might confront when contemplating the use of emergent methods. It is not surprising, then, that the development of innovative methods has occurred congruent to increased scholarship on reflexivity. Reflexivity is the practice of actively locating oneself within the research process, including the representation stage. Reflexive practice seeks to minimize the unintentional effects of power in the research process through attention to the ways that biography, authorship, and textual representations mediate the knowledge-building process, to work with an emergent method and to successfully negotiate insider and outsider status require a highly reflexive process. Additionally, emergent methods often invite multiple meanings and contradictions due to the fact that different paradigms offer different and often opposing interpretations. Major theoretical developments, particularly those in the qualitative paradigm, have opened the way for researchers to create methodologies that actively seek multiple meanings, tensions, and alternate viewpoints (see Hesse-Biber & Leavy, 2006).

As with all research methods, emergent methods are about methodological innovation for the purpose of enhancing knowledge building and advancing scholarly conversations. Therefore, it is not surprising that there are major trends involving who and what acts as the impetus for methodological innovation. Here we review the primary catalysts for the development or renegotiation of research methods.

Those researchers who are innovating in both methodologies and methods share some common characteristics. Research on the personality characteristics of interdisciplinarians, for example, performed by Klein (1990) suggests that innovators are characterized by "reliability, flexibility, patience, resilience, sensitivity to others, risk-taking, a

thick skin, and a preference for diversity and new social roles" (p. 182). These qualities appear to enhance the ability of those working in an interdisciplinary environment. Klein notes that interdisciplinarity requires excellent communication skills, as well as team-building abilities, in order to work with colleagues from diverse disciplines. Klein also states that "the wider the discrepancy between disciplines, and the greater the number of disciplines utilized, the wider the communication gap" (p. 183). To avoid this problem, an interdisciplinarian needs to be an exceptional communicator. Many of the methods reviewed in this volume take place at the edges of different disciplines, each with its own methodological perspectives. As interdisciplinarity spreads and garners a newfound legitimacy, new research questions heretofore unimagined are now being asked. In this way, the presence of emergent methods and its newfound visibility encourages the formulation of new questions about the social world—cyclically generating more methodological precision and innovation.

To reflect further on this issue, consider how research topics and questions develop. In addition to personal and professional interest in a topic and pragmatic concerns such as time and funding, the research questions posed are derived from collective literature on a particular topic and from our perception of our *ability* to illuminate a new dimension of it. As Eisner points out, "We tend to seek what we know how to find" (1997, p. 7). Moreover, sometimes we feel we're *on to something*, but traditional methods tools do not allow us to access it or represent it to an audience. Eisner elaborates: "Put another way . . . we report the temperature even when we are interested in the heat; we expect a reader to be able to transform numbers representing the former into the experience that constitutes the latter. New forms of data representation signify our growing interest in inventing ways to represent the heat" (1997, p. 7).

As evidenced throughout this handbook, many of the innovative methods now available to researchers have emerged as traditional methods have failed to get at "the heat." In this light it is not surprising that many qualitative emergent methods bring the intuitive process—always an implicit component of qualitative research—to the forefront. For example, the expanded use of metaphors during data collection and interpretation, now advocated by many qualitative researchers, offers a method for following and actively pursuing our "hunches" in order to see where they take us (see Dexter & LaMagdeleine, 2002; Moring, 2001; Todd & Harrison, Chapter 23, this volume). Likewise, performance methods such as ethnodrama and ethnotheater draw on the common practice of improvisation as a method for testing hypotheses. In other words, these methods allow researchers to explore the possibilities of "what if" (see Norris, 2000). These performance-driven methods use data collected via traditional qualitative methods (e.g., ethnography, interview, or public documents) that are interpreted through conventional or emergent inductive means and then presented dramatically through the writing of a script that is typically performed for an audience.

Paradigm Shifts

Let's take a specific look at how a shift in knowledge building can occur when paradigms for treating chronic pain bump up against one another. A Western "medical model" methodology embraces a "disease model" for understanding chronic pain. The "cure" of disease often involves intervention with drugs and neurotransmitters to block pain. Eastern models of medicine suggest the use of multimodal treatments that deal with the mind as well. This alternative approach to chronic illness believes in the synchronization of mind and body; treatment modalities suggested by this model often go against standard treatment practices of Western medicine. The following example takes us to the local hospitals of Portland,

Oregon, where patients are exposed to both Eastern and Western models for the treatment of chronic pain:

> Portland-area hospitals are using methods both ancient and modern—as varied as harp music and facet denervation—to treat patients suffering from chronic pain. Now that pain management has been mandated by the World Health Organization and the Joint Commission on Accreditation of Hospitals, physicians and hospital administrators are stepping up their efforts to make patients within the hospital, as well as outpatients, more comfortable. They are embracing a multidisciplinary approach and beginning to incorporate practices that until only recently were considered "fringe" or foreign.
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> Hired in 2001 as Providence St. Vincent's first acupuncturist on staff, Dr. Loc Chandler works mostly with cancer patients. "Acupuncture can be very beneficial in decreasing pain," Chandler says. "It releases the body's natural painkillers, and changes the flow of blood to the brain." Chandler says that acupuncture can also help improve the patient's health in general, so that the patient can take fewer pain medications, perhaps resume driving a car, and participate more fully in his or her life.
>
> "We have to do a lot of listening to people about what they think will be most helpful to them," says Jocelyn Libby, a cancer counselor with Providence. "Pain is such a subjective thing." Libby, a registered nurse with a master's degree in counseling psychology, and a certification to teach mind–body skills, uses breathing, meditation and guided imagery to help outpatients cope with pain. (Laufe, 2004)

This excerpt is a good example of how cross-cultural paradigmatic encounters for treating chronic pain can result in a broader view of how to treat chronic pain with a set of emergent methods that incorporates both Western and Eastern treatment techniques. A Western model suggests intervention with drugs and neurotransmitters to block pain, whereas an Eastern model suggests the use of multimodality treatments that deal with the mind as well as the body.

Epistemological and theoretical advances in the social sciences have also led to other efforts at integrating the mind and body in our research endeavors. For example, feminism has long argued for an integration of the mind and body, and many emergent feminist practices result from this commitment. Interdisciplinary embodiment scholarship, influenced by psychoanalytic theory, feminism, and postmodern theory, has also seen major advances in recent decades. In essence, embodiment theory places the *body*, our corporeal reality, at the center of the knowledge-building process. The "inscribed body" refers to the ways in which the body serves as a site of social meanings marked by the sociohistorical context (Grosz, 1994; Hesse-Biber & Leavy, 2006). For example, this theoretical scholarship considers how bodies become raced and sexed. Furthermore, Merleau-Ponty (1962) rejects the Cartesian artificial separation of the mind and body and rather argues that all experiences occur through the lived body. Therefore, social scholars need to consider experience itself as embodied. New theoretical understandings of embodiment, which also seek to integrate the mind and body in our research, have propelled a host of methodological innovations. For example, performance studies are an outgrowth in part of this kind of theoretical work. Performance studies, which may involve drama, dance, or creative movement, all draw on embodied artistic practices in their representation of data. In health studies, the method of "health theater" can be used to show the physical, psychological, and emotional experience of living with a particular disease or disorder or of caring for someone with a particular ailment. This method is an adaptation of ethnodrama that occurs within the field of health studies as a way of accessing and dramatically representing the lived experiences of the ill, the disabled, and those who care for them. Health theater, like other performance-driven methods, explicitly unites the mind and body in the research process.

Neither the paradigm shifts nor the turn to interdisciplinarity within academia have

occurred within a vacuum. Rather, social and political forces have shaped both the social world and our methods for learning about it. Entirely new paradigms have emerged as a result of the changing social world: examples include feminism, multiculturalism, queer studies, critical race theory, and third-world perspectives.

Within the social sciences new methodological perspectives make up the research landscape that challenge traditional standpoints on the nature of the individual and society. Such novel perspectives arose from the social justice movements, such as the civil rights movement and women's movement, in the 1960s and from the issues arising from the global economy. These innovative theoretical understandings of the social world challenge such traditional paradigms as positivism—a perspective that assumes a unified truth and whose goal is to "test" knowledge. They encourage, instead, the idea of multiple subjective perspectives on reality that seeks to question and thus expose the power dynamics of traditional paradigms by illuminating previously subjugated knowledge on the intersections of race, gender, sexuality, class, and nationality. Such novel paradigms often traverse disciplinary boundaries, opening up interdisciplinary space for dialogue on issues of social justice and oppression, and often embrace new perspectives emanating from a range of theoretical positions—feminist standpoint theory (Harding, 2004; Smith, 2004), postcolonial theory (Mohanty, 1988, 1992, 1999; Spivak, 1990), postmodernism (Nicholson & Seidman, 1995), ethnic studies (Perez, 1999), queer studies (Calvin, 2000), and critical theory and critical race theory (Wing, 2000).

All of these new perspectives push on traditional paradigmatic boundaries, bringing into visibility new research questions that emanate from the margins of the social world, especially from those whose knowledge has been subjugated: women, people of color, the poor, homosexuals, and so forth. These new questions, too, may require the use of new methods or the tweaking of more matured social methods such as ethnographies, surveys, or even the combining of macro and micro methods as in mixed methods designs to tackle these new questions. Another related general trend within all of these diverse perspectives is a critical and systematic reexamination of power *within the research process*. With greater attention to power in the research process, scholarship on reflexivity and authority has also flourished. In this regard, these perspectives offer alternative views of the researcher–researched relationship, subjectivity, authenticity, and many other issues. An outgrowth of these critical reexaminations of key ontological and epistemological issues is a reevaluation of traditional research practices from which innovative methods develop.

Technological Innovation

Sometimes the field of emergent methods is fueled not by new paradigmatic perspectives but through technological innovation that pushes on the boundaries of methodology. Key technological innovations are taking place within and across the disciplines. Consider the case of what happens when researchers discover a new technology—recombinant DNA—that allows researchers to find out whether an individual is in fact carrying genes for a range of diseases, from schizophrenia to breast cancer. With this new technology, doctors can test patients as an office procedure. The following is a conversation that took place among 50 primary care physicians from around the country who gathered at a conference to discuss the implications of this new technology, the new questions patients are certain to ask, and the issues and dilemmas they will face as a result of genetic testing. They have also come to gather new skills in order to prepare themselves for how they will practice medicine in the very near future.

The excerpt captures some of these dilemmas and was documented by one reporter

covering the conference. We hear the voices of several doctors, as well as commentary from the reporter.

> "It is quite extraordinary to be in a lab doing southern blots [a method for sequencing DNA] one afternoon and to be listening to a rabbi talk about the genetic screening of a Jewish community in Brooklyn the next morning," said Nason Hamlin, an internist from rural Connecticut.
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> While some doctors were drawn to the course to answer specific questions that had arisen in their practices, many came to satisfy their intellectual curiosity and to make up for a gap in their knowledge about genetics.
>
> For many, the most important aspect of the course was the attention to the ethical, legal and social issues raised by the efflorescence of genetic techniques. These issues ranged from the clinical—when do you tell patients that they carry a gene for a disease, and how do you tell them?—to the philosophical. "What is a good gene?" asked Susan Pauker, [Harvard Medical School] assistant clinical professor of pediatrics.
>
> The genetics revolution, the speakers noted, may be producing knowledge that is a double-edged sword. Although it may enable some patients to take preventive measures, it also may engender emotional problems for patients and larger social dilemmas as well.
>
> Patients may be told they are carriers for a gene that leads to a disease that has no cure. Or, in a family where a certain genetic ailment is common, those without the genetic defect may still suffer emotional problems, such as "survivor guilt." And genetic information, if made publicly known, might put a person's health insurance and job in jeopardy.
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> Even good news—of a person learning he or she isn't a carrier for a lethal gene—may cause emotional turmoil. One 37-year-old woman at great risk for breast cancer—her sisters and mother suffered from the disease—was initially elated to learn that she didn't carry the defective gene, an elation which quickly turned to guilt, Collins said.
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> "Everyone else has it but me," she told Collins. The woman required a year of intensive counseling to get over her guilt.
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> . . . for the already born, the future has arrived when it comes to screening for genetic defects in the unborn. The obvious potential pitfall with such screening is that it will lead, more and more, to parental demand for the "perfect baby." Fetuses with even minor genetic problems might be aborted.
>
> . . . As the genetics revolution continues to explode there will be an ever greater number of "bad" genes that can be identified in screening tests. The challenge . . . for doctors will be to learn how to best communicate this information to their patients. (Landau, 1994)

We can see from this example that a new method, genetic testing fueled by technological innovation, has pushed on the boundaries of traditional medicine. Those physicians who deal directly with patients find that they are forced to confront a new set of issues and ethical dilemmas; they must also confront the need to acquire a new set of technical and socioemotional skills to better treat and communicate with their patients. New options of care are opened up to patients, and the idea of treating future illnesses is brought to the forefront, which has implications for a range of life decisions and choices. For example, should a child who is not medically perfect be aborted? One can also imagine a set of new scenarios based on genetic testing. Should genetic testing be part of a prenuptial agreement? What if your future partner comes with "bad genes"? To what extent can a patient's privacy be guarded from employers and insurers who may use this information in a way that is harmful to future job prospects and financial security? We can see that the emergence of a new technology and method creates a host of new questions and issues that reverberate within and across segments of disciplines and social groups.

Toward a History and Politics of Methods

The idea of a *Handbook of Emergent Methods* is embedded in a historical methods context. It is important to take notice of the changing

character of methods throughout the history of the science and social science disciplines. Jennifer Platt's work on the history of American sociological research methods from the years 1920–1969 suggests the importance of studying the "evolution" of research methods in its own right, not just as an offshoot of sociological theory. Platt's study of the evolving nature of research methods suggests that we shift our attention from a focus on the "history of sociological theory" to an emphasized focus on the "history of research methods":

> The history of sociology has most commonly been written as the history of theoretical ideas. This has sometimes included methodological ideas, treated at an abstract and philosophical level, but has seldom given attention to practical research methods or, indeed, to empirical research. The history of theoretical ideas is an interesting and important area, but there has been proportionately too much of it for justice to be done to sociology as a whole. . . . The time has come to shift the balance of historical concern further in the direction of empirical research and ideas about its methods. (Platt, 1996, p. 1)

According to Platt, the history of sociological methods is one of a series of historical reinventions or reincarnations whereby methods tend to appear, disappear, and reappear, often given a new name depending on the discipline. Platt (1996) notes, for example:

> Beatrice Webb used participant observation before "participant observation" had been "invented" as a recognized technique. . . . Selvin . . . showed how Durkheim used analytic strategies which no one had formalized at the time. Lazarsfeld pointed out how Stouffer did novel things which he did not himself label as such, and for which Lazarsfeld received credit. (p. 32)

In fact, Platt suggests that some of the most popular research techniques of today, such as survey research, were methods historically linked to social reform movements striving to improve local communities rather than to the large-scale data collection instruments often used to collect data on national population trends. Contrary to survey research techniques today, Platt notes that the early surveys did not contain "fixed wording" choices, and they had little to do with seeking attitudinal information (1996, p. 45). Jennifer Platt notes that one of the ways to ensure that emergent methods do not disappear only to be rediscovered within and across the disciplines is to make sure that researchers *report* their use of innovative methods so that they do not remain invisible to mainstream researchers.

Qualitative researcher Janice Morse (2006) notes that although some methods can clearly be attributed to their developers, such as Barney Glaser and Anselm Strauss's (1967) book *The Discovery of Grounded Theory*, which emerged from the Chicago School of Sociology, many methods, especially those that are qualitative, such as ethnography, "have roots that are harder to identify" (p. 3) says Morse. There is a tendency for methods, even those whose method is well documented, to be used by another researcher. "The method is consciously or unconsciously tweaked, altered, adjusted, and improved" (p. 3). Sometimes, in fact, notes Morse, a method such as "grounded theory" is attached to Glaser and Strauss, but in fact the resulting use of the methods "does not resemble the method at all; and sometimes the method is modified and removed from the original developers, and another researchers' name is attached to the variation" (Morse, 2006, p. 3).

Janice Morse (2006, p. 4) provides a set of reflexive tips for the researcher as they go about their methods development:

1. "Be conscious of our methods, their origin, and our use of these strategies."
2. "If we develop a new method, or modify an old one, we must be . . . respectful and accurate in our representation of the original developer."
3. "Responsibility for this should be jointly

on the shoulders of the reviewers, the editors, and the users of these methods."

What Morse notes, however, are that "methods take on a life" of their own. She states:

> What is the responsibility of the original developer if he or she does not agree with the new emerging form or even with the minor tweaks? Barney Glaser registers his complaints in print, in new volumes clarifying his methods and criticizing or supporting the work of others. Other researchers may ignore the new development, and over time, different schools may emerge, with distinct differences in their methods. At other times, we may find an "anything goes" approach that is messy, lackadaisical, and poor science. (2006, p. 4)

The *Handbook of Emergent Methods* therefore seeks to increase both the visibility and legitimacy of the range of new methods and scholarship within and across the disciplines and interdisciplines.

Problems and Resistance to Emergent Techniques

Despite the interlinking of theory and methods, particularly pronounced in emergent methodologies, there nevertheless remains a gap between new theoretical perspectives and new methods practices. We have observed, for example, how physicians need to educate themselves both about recombinant DNA and about how to implement this new information in the treatment context. They will need to acquire new knowledge and technological skills, as well as research techniques, in order to bridge the divide between theory and practice. An alarming gap between methods and theory—both within and across the disciplines—continues to be a concern within the social and behavioral sciences.

Some argue that there is an "experience gap" in a researcher's comprehension and utilization of emergent methods. Many researchers are trained in the use of a single primary method. Utilizing an innovative method may require that they leave their "methods comfort zone," forcing them to think outside their "methods box" (Hesse-Biber & Leavy, 2006). An intently advocated countermovement to emergent methods has been gaining force within the social sciences. "Specialization"—the specific intent to utilize one research method until achieving mastery—has had an increase in support. Denzin has commented on the deprivation of innovation that arises as a by-product of specialization:

> Other sociologists have tended to use methods with little thought for either their theoretical implications or their differing ability to shed light on theory. Many sociologists now use only one method in their studies—thereby eschewing the potential value of other methodologies. Small-group theorists rely nearly entirely upon the experiment, while family sociologists primarily use the survey technique, and students of organizations overemphasize field strategies such as participant observation. This tendency has given rise to a rather parochial, specialty-bound use of research methods. (Denzin, 1989, p. 3)

Yet, if a research question calls for the use of a hybrid method, such as the combining of qualitative and quantitative methods, how will these new methods tools be integrated in one research study? Is it reasonable to expect, for example, that a qualitatively trained researcher with an interpretative philosophy can successfully practice quantitative techniques such as survey research? How will numbers be integrated with words in pursuit of new research questions? When dealing with the visual arts and other art-driven methods, how can words be transformed into images and vice versa?

While new theoretical problems are being raised across the disciplines, the lack of training programs in emergent methods in the social science curriculum of academia and the ongoing divide between qualitative and quantitative methods (see Denzin & Lin-

coln, 1994) continues, despite a reduction of the "paradigm wars" (Teddlie & Tashakkori, 2003).

Only augmenting this dilemma is the new emphasis on learning methods techniques with a "cookbook" approach. The idea has been suggested that social research is like a recipe and that methods and methodologies are interchangeable ingredients, the links between theory and methods being completely ignored (see Seiler, 2004). Robert Merton notes the importance of theory–methods linkage: "Nor is it enough to say that research and theory must be married if sociology is to bear legitimate fruit. They must not only exchange solemn vows—they must know how to carry on from there. Their reciprocal roles must be clearly defined" (1967, p. 171).

Another concern raised by those who utilize emergent methods is the "funding gap" (Hesse-Biber & Leavy, 2006). Funding agencies, private and governmental, may prefer that researchers use traditional "tried and true" research methods. Funders may not want to give up the confines of their own "methods funding comfort zone." In *The Coming Crisis in Western Sociology* (1971), Alvin Gouldner suggests that funding institutions may unduly influence what is considered as an "acceptable method and research problem." What is "accepted," according to Gouldner, is applied research, what Gouldner coined as "theoryless theories" (p. 444). Despite this concern, a close inspection of the influence that funding of research has on research reveals that funding agencies' power to define what methods to use and what problems are worth studying is not definitive. Beyond the power that intellectual and economic interests of funding agencies may have to "tip the balance" somewhat, additional factors exist that must be considered in order to fully understand what types of projects receive funding (see Platt, 1996).

Academic context may also determine the specific research methods utilized in a research study. The research culture within a given university or department may affect what methods are utilized by faculty and taught to students. University and departmental environments may embrace certain methods practices. For example, in the 1920s, the University of Chicago came to be seen as solely advocating the practice of qualitative methods and newly emergent qualitative methods. Ignored were the significant number of faculty who employed quantitative methods within the Chicago School academic environment (Platt, 1996). Platt (1996) suggests that the invisibility of the quantitative work of the Chicago School was a result of quantitative methods' ability to cross disciplinary boundaries, thereby not seeming to be particularly identified with a specific department or school. When citing the work of Martin and Joan Blumer (1981), Platt notes that "Blumer and Blumer suggest that one reason is that those committed to quantitative work are much less interested in their history. They see the development of their field as cumulative advance, and so do not legitimate their activities by reference to ancestors" (1981, p. 265).

In this light, we also suggest that the resistance to emergent methodological practices is historical and must also be situated in the context of the privileging of quantitative data over qualitative data. Though qualitative research has gained legitimacy over the past several decades and renegotiations of the qualitative paradigm are a great source of emergent methodologies, there are many researchers and practitioners who still feel more comfortable with "hard science," associated with traditional quantitative techniques. Additionally, many qualitative researchers who have struggled for legitimacy (including publication opportunities and funding) may have a vested interest in "protecting" traditional qualitative techniques and not "watering them down" with new, cutting-edge methods. This parallels the fear many feminists have raised regarding postmodern theory; some feminists fear "giving up" identity categories such as "women" and "group voice" after struggling for these con-

cepts to gain legitimacy for so many years (Hesse-Biber & Leavy, 2007). These feelings about protecting traditional qualitative methods are grounded in a fear that if we push on the methods border, "anything will go," and the legitimacy qualitative research has gained will be diminished. This is particularly salient given the critical theoretical perspectives from which many emergent methods have developed—perspectives that emphasize partial and situated knowledge over absolute truths.

Another potential resistance of researchers to using an emergent method is that it may require a researcher to rethink his or her epistemological and ontological perspective. Yet these notions of who can know and what can be known, held by researchers from different disciplinary backgrounds, may come together in what is termed "team projects." With team projects, researchers from a diverse array of disciplines may work together for a shared end result without having to sacrifice their particular epistemologies and ontologisms.

Innovation in the practice of social research is crucial. Researchers need to go beyond their own disciplinary boundaries to enhance their research vision of the social research landscape—what Laurel Richardson (2006) terms the "de-disciplining" of ourselves.

The intention of this introduction is not to generate an in-depth discussion of the social institutions that give rise to social research methods. However, it is a noteworthy observation, for it is often overlooked, yet serves as a reminder that there are a great number of factors both within and outside academia that must be analyzed in order to fully understand the phenomenon of why certain methods emerge and become standard and others linger on the periphery.

More than anything else, emergent methods are about advancing our understanding of the human condition. These new approaches—often initially criticized and even feared by those who feel more comfortable with conventional ways of knowing and traditional criteria for judging the usefulness of research (traditionally referred to as *validity* and *reliability*)—challenge our very conceptions of knowledge, including who creates it, what counts as knowledge, how it is to be disseminated and to whom, and how authenticity and trustworthiness can be achieved and evaluated. In other words, emergent methods force public scholarly conversations about knowledge and research, prompting a reevaluation of old standards and an exploration of the borders. In this way, these methods aid not only particular research projects but also the larger project of knowledge building and human discovery.

Goals of the *Handbook of Emergent Methods*

An important goal of this handbook is to provide a place for fresh insights on emergent methods. At this point in time, these methods are spread across a range of diverse disciplines, yet their practice is often hidden from the mainstream researcher's radar. The contributors to this volume address some of the following questions: How can alternative/emergent methods enhance our understanding of complex issues that emerge from interdisciplinary research? How can they enhance new paradigmatic approaches? The chapters represent state-of-the art work regarding emergent issues and methods. Authors provide in-depth examples of how a specific emergent method is applied in a research project, as well as examples of the types of questions that lend themselves to this type of innovation. Additionally, contributors who utilize a more traditional method in new ways address the impact of their innovations on conventional methods. These authors also address the factors that gave rise to this type of innovation within previously existing methods.

Furthermore, all authors were asked to address what they perceive to be the strengths and weaknesses of their innovations. For example: What are the problems

and prospects of practicing this type of innovation? Why is it practiced by particular researchers? Why is it practiced within a particular disciplinary or interdisciplinary project?

Organization of the *Handbook*

Where are the new and powerful innovations taking place across the research process, from data gathering to interpretation and analysis? What are the new methods practices? In order to address these questions we have organized the *Handbook* into three parts.

Part I considers the historical context of emergent methods within and across disciplines and presents a host of emergent research methods as identified by known experts in the field. This section introduces a range of innovative practices that are transforming traditional research methods approaches. This part contains chapters that represent those methods that break out of traditional methods boundaries and may come about in a number of different ways. For example, some researchers may find it difficult to rework traditional methods of their discipline and seek new "hybrid" methods such as a mixed methods approach, in order to answer complex questions that often cross disciplinary boundaries. The development of new technologies, such as the Internet and global information systems (GIS), allow researchers to collect new data, ask novel questions, and provide the technology for answering these questions. Goodchild and Janelle (2004), for example, employ GIS tools to track spatial patterns of social behavior. The advent of GIS-based technological tools, once the province of geographers, now provide a means for social scientists to deepen and reconceptualize their understanding of social context through the integration of a special dimension into their research.

Funding agencies, both public and private, also push on the boundaries of methods practices with growing expectations that researchers should consider mixed methods and other innovative methods practices that hold the promise of synergizing research outcomes.

Part II of the handbook reviews innovation in research design and analysis. New research designs allow new research questions, making innovations in this area important when considering the future of interdisciplinary research. In this section mixed methods design innovations—which are necessarily hybrids—as well as other hybrid designs are considered. Moreover, by covering interpretation and analysis, this section of the handbook is about the meaning-making process with respect to emergent methods. For example, how do we make sense out of data that have been collected in nontraditional ways? How do we conceive of authenticity, trustworthiness, validity, and reliability with respect to emergent research methods and methodologies? New research methods may require a new internal and cross-paradigmatic system of checks and balances. How is this process being negotiated?

For example, poetry is now being used as a research method (particularly as a form of representation) in the social sciences. Among others, Laurel Richardson and Norman Denzin have written about the methodological capabilities of "poetic transcription" and related methods. One of the issues that have arisen from this representational form is the question of validity. Put simply, traditional measures of validity are not appropriate criteria for judging research poems. Accordingly, Sandra Faulkner (2005) provides the following lists of scientific and artistic criteria, as well as by her assessment of "poetic criteria":

Scientific criteria
Depth
Authenticity
Experience
Trustworthiness
Understanding of human experience
Reflexivity

Usefulness
Articulation of craft/method
Ethics

Artistic criteria
Compression of data
Understanding of craft
Social justice
Moral truth
Emotional verisimilitude
Evocation
Sublimity
Empathy

Poetic criteria
Artistic concentration embodied
Discovery/surprise
Conditional
Narrative truth
Transformation

As you can see, the measures of trustworthiness used to evaluate qualitative research and those used to judge the quality of artistic poetry merge in Faulkner's final list. In this way, "poetic criteria" do not privilege social scientific or artistic ways of creating and knowing "truth(s)." Rather, they propose the hybridization or merging of the two to create a third space for contemplating what counts as knowledge, paralleling the "third voice" produced out of poetic transcription. In this way, working through the challenges of creating criteria by which to judge and compare research poems as an emergent research practice is also a way that social scientists challenge and expand standard definitions of knowledge itself.

Finally, Part III of the handbook considers the impact of emergent technologies on emergent research methods. In this section we are looking for a review of the literature on key innovations taking place within and across disciplines as a result of the development of new technologies. The questions raised in this section include: What type(s) of new technologies are being utilized in the social sciences, humanities, and natural sciences? Do the questions drive the technology within existing disciplines or across disciplines? Who is carrying out these types of new technologically dependent emergent methods? Are there specific research questions that prompt the use of new methods that demand technological devices? Does technology drive the creation of new methods? How so? How has the Internet transformed traditional research methods? How does access to new software tools, such as network-based software and software for qualitative data analysis, transform the way methods are practiced?

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