Situational Analyses: Grounded Theory Mapping After the Postmodern Turn

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To better address differences and complexities of social life articulated through the postmodern turn, grounded theory is being regenerated and updated. Based on Strauss's ecological frameworks in his social worlds and arenas theory, I offer situational maps and analyses as innovative supplements to the basic social process analyses characteristic of traditional grounded theory. There are three kinds of analytic maps: maps of situations including all the key human and nonhuman elements, maps of social worlds and arenas, and maps of positionality along salient analytic axes. This article introduces all three kinds of maps and explicates one—situational maps—as a means of coherently elucidating and analyzing some of the complexities and instabilities of social life.

REGROUNDING GROUNDED THEORY

Broadly framed, the postmodern turn has provoked an array of concerns about the nature of inquiry and crises of representation and legitimation. The complexities of social life and the paucity of means of addressing them analytically much less representationally constitute one such concern. Law and Mol (2002:1) have recently asked: "How might complexities be handled in knowledge practices nonreductively, but without at the same time generating ever more complexities until we submerge in chaos?" My project is to develop means and modes of regenerating and updating a very popular and epistemologically sound approach to qualitative analysis called grounded theory to focus on these problematics of differences and complexities.

I seek to resituate grounded theory, initially developed and elaborated by Glaser and Strauss and later by others,[1] around the postmodern turn through new approaches to analysis within the grounded theory framework. The new approaches, situational maps and analyses, can be used in a wide array of research projects drawing on interview, ethnographic, historical, visual, and other discursive materials,

including multisite research. These methodological innovations allow researchers to draw together studies of discourse and agency, action and structure, image, text and context, history and the present moment—to analyze complex situations of inquiry. Thus they can support researchers from heterogeneous backgrounds pursuing a wide array of projects.

Situational analyses have a radically different conceptual infrastructure or guiding metaphor from the "basic social process" concept that undergirds traditional grounded theory. Strauss's social worlds/arenas/negotiations framework replaces it.[2] Building on and extending Strauss's work, situational analyses offer three main cartographic approaches:

1. *situational maps* that lay out the major human, nonhuman, discursive, and other elements in the research situation of concern and provoke analyses of relations among them;
2. *social worlds/arenas maps* that lay out the collective actors, key nonhuman elements, and the arena(s) of commitment within which they are engaged in ongoing negotiations, or mesolevel interpretations of the situation; and
3. *positional maps* that lay out the major positions taken, and *not* taken, in the data vis-à-vis particular discursive axes of variation and difference, concern, and controversy surrounding complicated issues in the situation.

All three kinds of maps are intended as analytic exercises, fresh ways into social science data that are especially well suited to contemporary studies from solely interview-based to multisited research projects. They are intended as supplemental approaches to traditional grounded theory analyses that have centered on the framing of action over time as basic social processes. Instead, these maps center on elucidating complexities—the key elements and conditions that characterize the situation of concern in the research project broadly conceived. Situational analyses can deeply situate the research individually, collectively, social organizationally and institutionally, temporally, geographically, materially, culturally, symbolically, visually, and discursively. Their outcomes should be "thick analyses" (Fosket 2002) paralleling Geertz's (1973) "thick descriptions."

In this article I first briefly frame what I mean by "the postmodern turn," especially vis-à-vis complexity and variation. I then sketch the main parameters of basic grounded theory as it has been done over the past thirty-plus years. Next, I frame the three new approaches that together constitute situational analyses. Last, I provide an extended "how to" section focused, due to limited space, on only one of the three approaches, situational maps.

THE POSTMODERN TURN

The postmodern turn has occurred across the academy in the social sciences, humanities, and professional schools, and throughout other venues of knowledge production such as the media and sites of creativity in the arts, film, architecture, and so

on. Postmodernism consists of many things and interpretations, today essentially ubiquitous if also contested (e.g., Best and Kellner 1991; Fontana 2002; Lather 2001; Olesen 2000; Rosenau 1992; Usher 1997). If modernism emphasized universality, generalization, simplification, permanence, stability, wholeness, rationality, regularity, homogeneity, and sufficiency, then postmodernism has shifted emphases to localities, partialities, positionalities, complications, tenuousness, instabilities, irregularities, contradictions, heterogeneities, situatedness, and fragmentation—complexities. Postmodernism itself is not a unified system of beliefs or assumptions but rather an ongoing array of possibilities, "a series of fragments in continuous flux . . . abandoning overarching paradigms and theoretical and methodological meta-systems" (Fontana 2002:162). Postmodern scholarship seeks to address "almost unthinkably complex, interrelated and interactive global" situations while simultaneously acknowledging the "ungraspable of this world" (Usher 1997:30). It involves us in "the ontological politics of staying true to complexity" (Landstrom 2000:475), however partially and contradictorily.

Research, then, is not impossible after the postmodern turn but quite different (Lather 2001). Not only are more scientistic quantitative approaches challenged through the sociology of knowledge and science, but so too are interpretive qualitative approaches to knowledge production. While, contra Clough (1992), there may not have been a complete "end of ethnography" and other methods, including grounded theory, as we have known them in the past, there has been at least an end to their acceptability to many of us in the absence of the kinds of reflexivities and acknowledgments of complexities that have drawn our serious attention through the postmodern turn. There is also a renaissance, a rebirth of new and older approaches attempting in a multitude of ways to take into account the still profound and haunting if heterogeneous and challenging theoretical insights posed by those contributions to the human sciences called postmodern.

To address the needs and desires for empirical understandings of the complex and heterogeneous worlds emerging through new world orderings, new methods are requisite (Haraway 1999). I believe some such methods should be epistemologically/ontologically based in the pragmatist soil that has historically nurtured symbolic interactionism and grounded theory. Through Mead, an interactionist grounded theory has always had the capacity to be distinctly perspectival in ways fully compatible with what are now understood as situated knowledges. This fundamental and always already postmodern edge of a grounded theory founded in symbolic interactionism makes it worth renovating.[3]

Many problematics of methodology per se have been elaborated through the postmodern turn. These include an ever-deepening recognition of the always already political nature of the practices of research and interpretation; enhanced reflexivity on the part of researchers—and increasingly on the part of those researched—about research processes and products; such a profound recognition of the problematics of representation that there is an ongoing "crisis of representation"; questions of the legitimacy and authority of both research and the researcher; and

de/repositioning the researcher from "all-knowing analyst" to "acknowledged participant" in the production of always partial knowledges (e.g., Denzin and Lincoln 1994, 2000; Gubrium and Holstein 2002). All of these postmodern problematics are addressed through situational analyses.

Yet, to me, the methodological implications of the postmodern primarily require taking situatedness, variations, complicatedness, differences of all kinds, and positionality/relationality very seriously in all their complexities, multiplicities, instabilities, and contradictions. The postmodern has often been greeted with disdain by some/many sociologists and other social scientists precisely because of the deep and at least century-long commitments of the discipline to the erasure of "context," variation, and complexity through the vast bulk of empirical research—both qualitative and quantitative. Most research has relentlessly sought commonalities of various kinds while evading and avoiding representations of the complexities, messiness, and denseness of actual situations and differences in social life. Variation or difference is even called "noise" in some approaches to research. Simplifying and universalizing strategies abound (e.g., Hornstein and Star 1990; Star 1983, 1986). Further, positions have been "correlated" with persons and groups in rigid and essentializing ways that have also erased multiplicities, ambivalences, contradictions, and the very relationalities through which we negotiate social life itself.

But what do I mean by the complexities of "situatedness" after the postmodern turn? I am quite specific. Many if not most of the methodological moves since the postmodern turn have centered on research wherein individual "voice" and its representation lie at the heart of the matter. These include autoethnography, interpretive ethnography, new biographies/life stories, interpretive phenomenologies, the many forms of narrative analysis, and many forms of feminist inquiry.[4] I heartily applaud these efforts and very seriously engage analysis of individual-centered materials here. But the most innovative part of my project also brings the social—*the full situation of inquiry*—further around the postmodern turn and grounds it in new analytic approaches that do justice to the insights of postmodern theory. With Denzin (2001:85–97), I am deeply committed to "situating interpretation." With Hall and McGinty (2002:304), I am asserting that "interactionists [and others] can and should expand their theoretical environment, broaden their perspective to be sensitive to and analyze more general, larger domains of social action." Action is not enough. Our analytic focus needs to be fully on the situation of inquiry broadly conceived.[5]

Some years ago, Katovich and Reese (1993:400–405) interestingly argued that Strauss's negotiated order and related work recuperatively pulled *the social* around the postmodern turn through its methodological [grounded theoretical] recognition of the partial, tenuous, shifting, and unstable nature of the empirical world and its constructedness. I strongly agree and would argue that Strauss also furthered this "postmodernization of the social" through his conceptualizations of social worlds and arenas as modes of understanding the deeply situated yet always also fluid organizational elements of negotiations. He foreshadowed what later came to be known as postmodern assumptions: the instability of situations; characteristic changing,

porous boundaries of both social worlds and arenas; social worlds seen as mutually constitutive/coproduced through negotiations taking place in arenas; negotiations as central social processes hailing that "things can always be otherwise"; and so on. Significantly, negotiations constitute discourses that also signal micropolitics of power as well as "the usual" meso/macrostructural elements—power in its more fluid forms (e.g., Foucault 1979, 1980). Through integrating the social worlds/arenas/negotiations framework with grounded theory as a new conceptual infrastructure, I hope to sustain and extend the methodological contribution of grounded theory to understanding and elaborating what has been meant by "the social" in social life—before, during, and after the postmodern turn.

BASIC GROUNDED THEORY

This article assumes some familiarity with basic or traditional grounded theory methods, and the greater the familiarity, the easier the read. Very briefly for those unfamiliar, grounded theory is an empirical approach to the study of social life through qualitative research and analysis (see note 1). In this method, the analyst initially codes the data (open coding)—word by word, segment by segment—and gives temporary labels (codes) to particular phenomena. The analyst determines whether codes generated through one data source also appear elsewhere and elaborates their properties. Related codes that have endured are then densified into more enduring and analytically ambitious "categories," and these are ultimately integrated into a theoretical analysis of the substantive area. Thus a "grounded theory" of a particular phenomenon of concern is composed of the analytic codes and categories generated in the analysis that have been explicitly integrated to form a theory of the substantive area that is the focus of the research project—a "substantive theory." In traditional grounded theory, over time, after multiple substantive theories of a particular area of interest have been generated through an array of empirical research projects, so the argument went, more "formal theory" could be developed (see esp. Strauss 1995).

Unique to this approach has been, first, its requiring that analysis begin as soon as there are data. Coding begins immediately, and theorizing based on that coding does as well, however provisionally (Glaser 1978). Second, "sampling" is driven not necessarily (or not only) by attempts to be "representative" of some social body or population (or its heterogeneities) but especially and explicitly by *theoretical* concerns that have emerged in the provisional analysis. Such "theoretical sampling" focuses on finding *new data sources* (persons or things) that can best explicitly address specific theoretically interesting facets of the emergent analysis. Theoretical sampling has been integral to grounded theory from the outset, remains a fundamental strength of this analytic approach, and is crucial for the new situational analyses.

Since its inception in the late 1960s (Glaser 1978; Glaser and Strauss 1967; Strauss 1987), most research using grounded theory has relied on fieldwork to generate interview and/or ethnographic data through which to analyze human action (e.g.,

Glaser 1993; Strauss and Corbin 1997). Conventional grounded theory has focused on generating the "basic social process" occurring in the data concerning the phenomenon of concern—the basic form of human action in the situation of concern. Studies have been done, for example, on *living with* chronic illness (Charmaz 1991; Orona 1997), *crafting* scientific work (Fujimura 1996), *disciplining* the scientific study of reproduction (Clarke 1998), *classifying* and its consequences (Bowker and Star 1999; Star and Griesemer 1989), *organizing* the specialty of pain medicine (Baszanger 1998), *making* hospitals appear accountable for their practices (Wiener 2000), *making* CPR the main emergency response to sudden death (Timmermans 1999), and *creating* a new social actor—the unborn patient—via fetal surgery (Casper 1998).

In a traditional grounded theory study, the key or basic social process is typically articulated in gerund form connoting ongoing action at an abstract level. Around this basic process are then constellated the particular and distinctive conditions, strategies, actions, and practices engaged in by human and nonhuman actors involved with/in the process and their consequences. For example, subprocesses of disciplining the scientific study of reproduction include *formalizing* a scientific discipline, *gleaning* fiscal support for research, *producing* contraceptives and other technoscientific products, and *handling* any social controversies the science provokes (such as cloning and stem cell research).

Many superb projects have used basic grounded theory, and this action-centered approach will continue to be important analytically. Situational analyses supplement basic grounded theory with situation-centered approaches that can enrich research by addressing and engaging important postmodern theoretical and methodological concerns about differences and complexities of social life. In many ways grounded theory was always already around the postmodern turn, while in other ways it was not particularly so, and/or not clearly so. Situational maps and analyses make it so.

SITUATIONAL MAPS AND ANALYSES

My goal is to renovate and regenerate the grounded theory method toward new approaches to grounded theorizing. I seek to do so by

- disarticulating grounded theory from its remaining positivist roots in 1950s and 1960s social science and enhancing its always already present but heretofore muted postmodern capacities;
- supplementing the traditional grounded theory root metaphor of social process/ action with an ecological root metaphor of social worlds/arenas/negotiations as an alternative conceptual infrastructure that also allows situational analyses at the mesolevel, new social organizational/institutional and discursive sitings, as well as individual-level analyses;
- supplementing the traditional grounded theory analysis of a basic or key social process (action) with multiple alternatives centered on cartographic situational analyses emphasizing (1) maps of key elements of the situation, variation, and

difference(s); (2) maps of social worlds and arenas in mesolevel discursive negotiations; and (3) maps of issues and discursive axes focused around difference(s) of positionality and relationality;

- generating sensitizing concepts and theoretical integration toward provocative yet provisional grounded theor*izing* rather than the development of substantive and formal theories as the ultimate goals; and
- framing systematic and flexible means of *research design* that facilitate multisite research, including discursive textual, visual, and archival historical materials and documents, as well as ethnographic (interview and observational) transcripts and field notes to more fully take into account the sea of discourses in which we are continually awash in the postmodern era.

With deep roots in symbolic interactionist sociology and pragmatist philosophy, the grounded theory method can be viewed as a theory/methods package with an interpretive, constructionist epistemology (Fujimura 1992; Star and Griesemer 1989). Although scholars using grounded theory have ranged from positivist to social constructivist, more recent work has been shifting toward more constructivist assumptions/epistemologies (Charmaz 1995, 2000). The assumptions of my proposed approaches to grounded theorizing are congruent with those constructivist tendencies, and I seek with Charmaz (2000:510) to "reclaim these tools from their positivist underpinnings to form a revised, more open-ended practice of grounded theory that stresses its emergent, constructivist elements" and to "use grounded theory methods as flexible, heuristic strategies." Charmaz emphasizes that a focus on meaning-making furthers interpretive, constructivist, and, I would add, relativist/perspectival understandings. My goal is to further enable, sustain, and enhance such shifts.

Although Glaser and Strauss did not initially emphasize context/situatedness, Strauss both on his own and with Corbin very much engaged situatedness through their conditional matrices.[6] These are analytic devices intended to push the analyst to seriously consider the various contexts of their research focus and to portray how contextual elements "condition" the action. But, although pointing in some "right directions," I find the conditional matrix approach inadequate to the task (see also Hall 1997) and offer instead the considerably more elaborate situational analyses. Here, the situation *itself* is a key unit of analysis per se.[7]

Situational analyses, then, are accomplished through the making of three kinds of maps and following through with analytic work and memos of various kinds. First are situational maps that lay out the major human, nonhuman, discursive, and other elements in the research situation of concern and provoke analyses of relations among them. These maps are intended to capture and discuss the messy complexities of the situation in their dense relations and permutations. They intentionally work *against* the usual simplifications so characteristic of scientific work (Star 1983, 1986) in particularly postmodern ways.

Second, social worlds/arenas maps lay out all of the *collective* actors and the arena(s) of commitment within which they engage in ongoing negotiations. Such

maps offer mesolevel interpretations of the situation, engaging collective action and its social organizational and institutional and discursive dimensions. They are distinctively postmodern in their assumptions: we cannot assume directionalities of influence; boundaries are open and porous; negotiations are fluid and usually ongoing. Negotiations of many kinds from coercion to bargaining are the "basic social processes" that construct and constantly destabilize the social worlds/arenas maps. Things could always be otherwise—not only individually but also collectively/organizationally/institutionally—and these maps portray such postmodern possibilities.

Third and last, positional maps lay out the major positions taken, and *not* taken, in the data vis-à-vis particular discursive axes of variation and difference, concern, and controversy found in the situation of concern. Perhaps most significantly, positional maps are *not* articulated with persons or groups but rather seek to represent the full range of positions on particular issues. The maps allow multiple positions and even contradictions within both individuals and collectivities to be fully articulated. Complexities themselves are heterogeneous, and we need improved means of representing them.

MAKING SITUATIONAL MAPS

Attempting to be accountable to complexity, thinking the limit becomes the task, and much opens up in terms of ways to proceed for those who know both too much and too little.

—Lather 2001

There are several caveats. First and perhaps most important, the maps produced are not necessarily intended to form final analytic products. Although they may do so, a major and perhaps the major use for them is "opening up" the data—interrogating them in fresh ways. As researchers, we constantly confront the problem of "where and how to enter." Doing situational analyses offers new paths into the full array of data sources and lays out in various ways what you have to date. These approaches should be considered *analytic exercises*—constituting an ongoing research "workout" of sorts—well into the research trajectory. Their most important outcome is provoking the researcher to analyze more deeply.

Second, the approaches can be used with coded data (using conventional grounded theorizing approaches to coding) or even, at least partially, with uncoded but carefully read and somewhat "digested" data. Thus these new approaches can address the problem I term "analytic paralysis" wherein the researcher has assiduously collected data but does not know where or how to begin analyzing it. Analytic paralysis, of course, is not supposed to happen in a traditionally pursued grounded theory project wherein analysis, coding, and memo writing begin at the same time as data collection and theoretical sampling then guides some aspects of further data collection. But it does happen, for many reasons, especially but not only among neophytes, and usually due to fear of analysis and/or fear of making premature and/or "erroneous" analytic commitments.

Third, precisely *because* the approaches should stimulate thinking, they should

always be undertaken with the possibility for simultaneous memoing. These *relational* modes of analysis should provoke new insights into relations among the elements that need memoing promptly. In addition, in the kinds of "wallowing in the data" requisite to doing these maps, the researcher will notice new things already in the data that should receive analytic attention, note areas of theoretical interest where particular kinds of additional data are requisite (theoretical sampling lives!), and so on. Inadequate memoing is the major problem of almost all research projects; scribbled notes are always better than nothing, and thoughtful memos on the computer are intellectual capital in the scholarly bank.

The fourth and last caveat is perhaps the most radical. As trained scholars in our varied fields, usually with some theoretical background, we may also suspect that certain things may be going on that have not yet explicitly appeared in our data. As ethically accountable researchers, I believe we need to attempt to articulate what we see as the *sites of silence* in our data. What seems present but unarticulated? What thousand-pound gorillas are sitting around in our situations of concern that nobody has bothered to mention as yet (Zerubavel 2002)? Why not? How might we pursue these sites of silence and ask about the gorillas without putting words in the mouths of our participants? These are very important directions for theoretical sampling. That is, the usefulness of the approaches elucidated here consists partly in helping the researcher think systematically through the design of research, especially decisions regarding future data to collect.

ABSTRACT SITUATIONAL MAPS

The locus of analysis here is the situation, rooted in the Thomases' ([1928] 1970) classic terms but recently updated (Clarke forthcoming, 2004). *The goal here is to lay out as best one can all the human and nonhuman elements in the situation of concern of the research broadly conceived.* In the Meadian sense, the questions are: Who and what are in this situation? Who and what matters in this situation? What elements "make a difference" in this situation?

Figure 1 offers the first Abstract Situational Map—Messy/Working Version. A situational map should include all analytically pertinent human and nonhuman, material and symbolic/discursive elements of a particular situation as framed by those in it *and by the analyst.* The human elements (individuals, groups, organizations, institutions, subcultures, etc.) are generally fairly easy to specify. It is likely that, over time, not all will remain of interest. This first map is intentionally very messy and hence very accessible and manipulable. Some people will prefer to continue working in this fashion.

Nonhuman actors and actants structurally condition the interactions within the situation through their specific properties and requirements—the demands they place on humans who want to or are forced to deal with them. Their obduracies must be routinely taken into account by other actors. Some examples of nonhuman actants may be helpful. In modern Western science, access to all kinds of research supplies is

FIGURE 1.   Abstract Situational Map, Messy/Working Version

assumed to be available, as is a certain level of physical infrastructure to do scientific work. Reliable electricity is a generally assumed, usually "invisible" nonhuman actor in such situations. Yet today, in many parts of the world, steady sources of power are far from common—in parts of the "first world" as well as where we might expect it in the "third world." (I would have said this even if I did not live in California amid rolling blackouts during some of this writing.) Specifying this nonhuman actor might be important downstream. For Western scientists, needed research materials can usually be ordered today by fax or e-mail (e.g., purebred rats, cages, food, medical and surgical supplies, lineage forms, chemicals, cell lines, hormones). Historically, no such research supply houses existed and getting your research materials was a do-it-yourself project of the first magnitude (Clarke [1987] 1995). So in a contemporary ethnographic study of a lab, for example, ease of access to needed supplies and technolo-

gies might well be worth analytic consideration. It certainly deserves a few moments of contemplation. *The key question is what nonhuman things really "matter" in this situation of concern.* It is the researcher's responsibility to get these into the data—through ethnographic observations, field notes about interviews, through interviews per se, and so on. I am pushing hard on theoretical sampling here.

We also need to ask what ideas, concepts, ideologies, discourses, symbols, sites of debate, cultural "stuff" may "matter" in this situation. Continuing to consider research materials used in the life sciences and biomedicine, I would want to highlight the symbolic meanings of some of them. To many if not most people, there are tremendous symbolic differences between using rats and mice in research wherein they are sacrificed or killed and using cats and dogs, monkeys, and human stem cells. The use of animals with the routinized capacity for being pets has historically mobilized major segments of antivivisection movements, unlike the use of rats and mice. The symbologies of monkeys as nonhuman primates "close to us" triggers yet other reactions, and stem cells (taken from human conceptuses) evokes in the United States about one hundred fifty years of debate about abortion and women's rights. Enough said. The symbolic and discursive meanings of elements in situational maps may be of tremendous significance in the analysis. Again, the researcher needs to make sure they are present in the data gathered and the situational map. If they turn out to be of no particular importance, they will drop away in later stages of the research process.

Figure 2 offers the second Abstract Situational Map—Ordered/Working Version. The categories on this map seem basic to me. Other broad categories not listed here may well be valuable additions. I have drawn these generalizing from my own work and from Strauss's (1993:252) several "general orders" within his negotiated/processual ordering framework: spatial, temporal, technological, work, sentimental, moral, aesthetic, and so on. *There is no absolute need to have all of these categories in any given analysis.* You may also have other categories. What appears in *your* situational map is based on *your* situation of concern—your project.

Further, although the situational map will not, of course, have absolutely everything in the situation listed, it should at least start out erring on the side of inclusivity. Having a big piece of paper with most everything that you can figure out is important in the research situation written on it in some way can be extraordinarily powerful and empowering for the analyst. It allows you to get a grip on your research, which, in turn, allows analysis to proceed. Simply staring at the situational map, revising it via collapsing and expanding categories/items, adding and deleting, is provocative. This is a moment when the art of research is strong, as one form of representation versus another will usually seem "right or wrong" or at least "better or worse." One makes some analytic commitments (however provisional) and moves on. Memoing at the end of a mapping session about that session is crucial, noting new insights, signaling shifts of emphasis or direction, detailing further data needs for theoretical sampling.

Despite their appearance of fixity, these maps are not static, in the way that we think, say, of street maps as representing fixed entities in more or less constant relationships with each other and unlikely to change very much. (Of course, this is also

INDIVIDUAL HUMAN
ELEMENTS/ACTORS
e.g., key individuals and
   significant (unorganized)
   people in situation

COLLECTIVE HUMAN
ELEMENTS/ACTORS
e.g., particular groups,
   specific organizations

DISCURSIVE CONSTRUCTIONS
OF INDIVIDUAL AND/OR
COLLECTIVE HUMAN ACTORS
As found in the situation

POLITICAL/ECONOMIC
ELEMENTS
e.g., the state; particular
   industry/ies; local/regional/global
   orders; political parties; NGOs;
   politicized issues

TEMPORAL ELEMENTS
e.g., historical, seasonal, crisis,
   and/or trajectory aspects

MAJOR ISSUES/DEBATES
(USUALLY CONTESTED)
As found in the situation; and
   see positional map

OTHER KINDS OF ELEMENTS
As found in the situation

NONHUMAN ELEMENTS
ACTORS/ACTANTS
e.g., technologies, material
   infrastructure, specialized
   information and/or
   knowledges, material "things"

IMPLICATED/SILENT
ACTORS/ACTANTS
As found in the situation

DISCURSIVE CONSTRUCTION
OF NONHUMAN ACTANTS
As found in the situation

SOCIOCULTURAL/SYMBOLIC
ELEMENTS
e.g., religion, race, sexuality,
   gender, ethnicity, nationality,
   logos, icons, other visual and/or
   aural symbols

SPATIAL ELEMENTS
e.g., spaces in the situation;
   geographical aspects; local,
   regional, and/or global issues

RELATED DISCOURSES
(HISTORICAL, NARRATIVE
AND/OR VISUAL)
e.g., normative expectations of
   actors, actants, and/or other
   specified elements; moral/ethical
   elements; mass media and other
   popular cultural discourses;
   situation-specific discourses

FIGURE 2.   Abstract Situational Map, Ordered/Working Version

an incorrect assumption about street maps.) In sharp contrast, there can be considerable fluidity through negotiations, repositionings, and so on, in the relations portrayed in these maps, including the addition and deletion of actors and actants.

EXEMPLARS OF SITUATIONAL MAPS

In this short article, I can offer only one exemplar. While I have tried to be thorough, my representation is, by necessity, quite partial. The exemplar is Janet Shim's research on two different sets of people concerned with cardiovascular disease in

the United States today.[8] First are epidemiologists and related researchers who study the racial, sex/gender, social class, ethnic, geographic, and other distributions of cardiovascular diseases (CVDs) in populations. Second are people of color who have themselves been diagnosed as having CVDs. Shim's explicitly comparative approach relied on in-depth interviews with people from both groups and ethnographic observations at professional conferences, meetings, health education forums, and related venues. Shim's research centers on the *meanings* of race, class, and sex in relation to CVDs constructed by both the epidemiologists and the people of color diagnosed with CVDs. In the United States race, class/SES (socioeconomic status), and sex/gender are key variables in all the social sciences and have been central historically. In fact, all of these elements of individual and collective identity have been becoming increasingly socially and culturally important in the United States, and consequential for the organization of health research and the provision of care. This is precisely what provoked Shim's research on what the various elements *mean* to different people directly involved in cardiovascular health.

The development of the discipline of epidemiology over roughly the latter half of the twentieth century has centered on studies of CVDs. CVD studies were significant in terms of the kinds of research designs and data accorded scientific legitimacy, the elaboration of more sophisticated research methods, and debates over the etiological roles of genetic, biological, lifestyle, environmental, and social factors in disease distribution. Further, persistent disparities in CVD incidence and outcomes along racial, socioeconomic, and sex lines have raised public concerns and prompted research explicitly aimed at uncovering the causes of such inequalities. These concerns and the resulting research led Shim to examine the meanings of race, class, and sex/gender to epidemiologists as socially constructed, invoking and mobilizing particular conceptions of bodily and social "differences." Therefore, Shim seeks to grasp the array of such constructions and to identify who holds which conceptions.

Shim's questions for the people of color diagnosed with CVDs centered on how their experiences as being of a specific race, class, and sex-gender have shaped their understanding of their CVDs. She also examined their perceptions of and engagements with biomedical dogma regarding what constitutes their risk factors and what they should do to ameliorate their conditions. These interviews thus examined people's experiences with clinical providers, the advice and recommendations offered to them, and the discursive claims circulating about their risks and their causes. Shim also attended to their awareness, comprehension, acceptance, strategic invocation, and sometimes rejection of the dominant constructions of "difference" circulating within the "expert" social worlds in the cardiovascular disease arena.

MESSY SITUATIONAL MAP OF RACE, CLASS, AND SEX/GENDER IN CARDIOVASCULAR EPIDEMIOLOGIES

Looking at Figure 3, the messy situational map, first note that many institutional/collective actors are in the situation. Professional expertise is central to her project
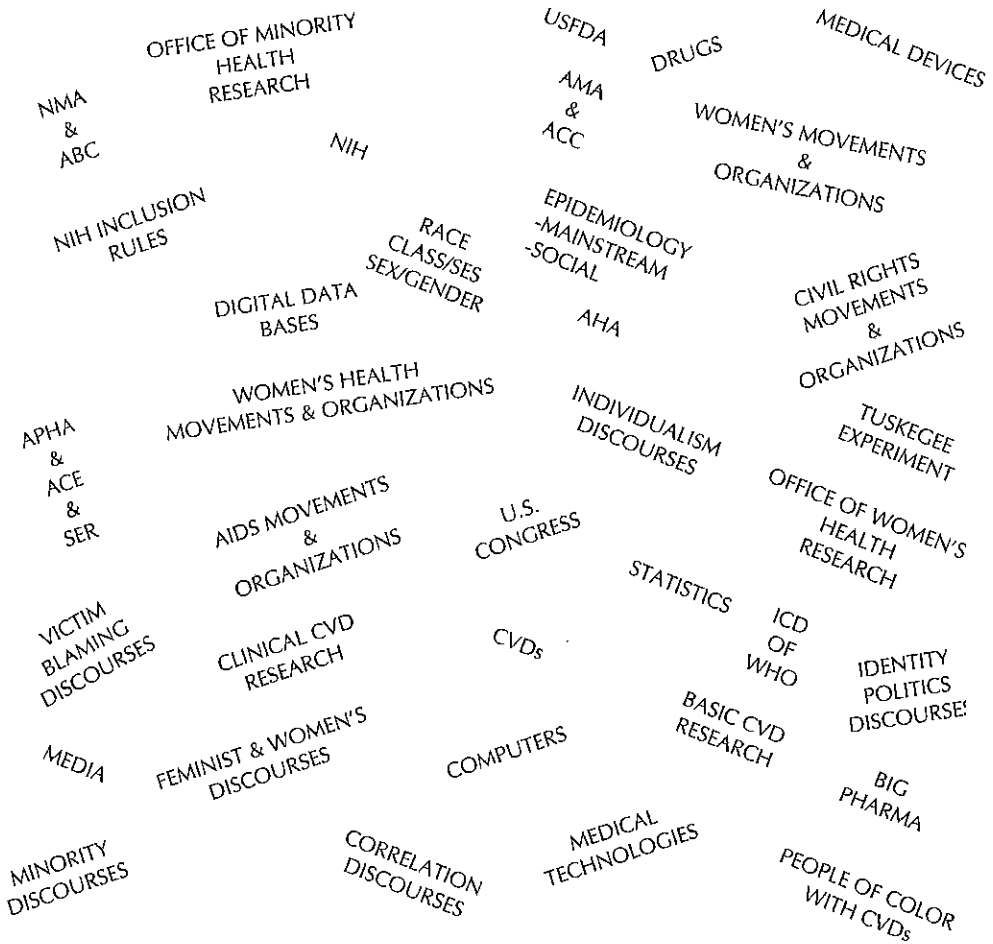
FIGURE 3.   Messy Situational Map of Race, Class, Sex/Gender,
and Cardiovascular Epidemiologies

and federal research funding fuels the whole arena. Recently, the U.S. National In-
stitutes of Health (NIH) implemented revised "inclusion rules" whereby federally
funded research using human subjects must include women and people of color or
satisfactorily explain why they cannot be included. The long tradition of white men
as the "standard medical research subjects" whose outcomes could supposedly be
generalized to all others has begun to collapse. There are also at the NIH the rela-
tively new Office of Research on Minority Health (f. 1990) and Office of Research
on Women's Health (f. 1990); both have been and remain politically controversial
and vulnerable. These developments, deeply charged with "identity politics," have
emerged in response to various social movements active over the past fifty-plus
years: civil rights and antiracism, women's, women's health, AIDS, and others.

Today, ongoing movement organizations monitor federally funded research in relation to these inclusion rules and other identity-based criteria.

For the epidemiologists, the most important nonhuman elements in Shim's situational map are the computers and software programs that perform highly complex statistical manipulations on data from giant population samples. Computers are so important here that a major exhibit at the London Science Museum titled "Health Matters: Modern Medicine and the Search for Health" featured an early computer as the major artifact for public health and epidemiology after World War II. That is, computing makes possible much more complex assessments of the associations of different measures of race, class/SES, and sex/gender with various conditions and diseases that characterize contemporary epidemiological science. Further, the International Classification of Diseases of the World Health Organization, the major means of globally systematizing distributional statistics, is ultimately if peripherally involved. Classification—deciding who/what will count as X or Y or Z—is in fact one of the "basic social processes" at issue in Shim's research (see also Bowker and Star 1999).

Figure 4 is the Ordered Situational Map of Race, Class, Gender, and Cardiovascular Epidemiologies. Note that *some elements appear multiple times*—under different headings—as their salience can be quite differently inflected and *all* sites of their appearance deserve analytic consideration. For example, "individualism" appears under concepts/ideas, national historical frame, and public cultural discourses, signaling that individualism needs to be understood in multiple ways in this research. Individualism, in this project, is the notion that phenomena related to disease and illness—ranging from causes, progression, manifestations and symptoms, outcomes, treatment, and amelioration—can be appropriately and adequately understood at the level of the individual.

In Shim's project, individualism first needs to be explicated as an idea/concept salient in the conduct of mainstream epidemiology and as a focal point for commentaries and critiques about its practices. Then its historical importance in relation to causal theories in health generally and cardiovascular risk specifically need to be laid out. Third, individualism constitutes a central public discourse, structuring the ways we think about bodies and multiple health-related phenomena including the origin, location, and amelioration of illnesses. For Shim, analytic considerations might therefore include asking: How do people diagnosed with CVDs engage or not with individualistic rhetorics about the disease causes, risks, and cures? How do epidemiologists so engage or not? How do they discuss—give language to—these issues in their work, thereby producing CVD discourses?

Shim's questions for her situational maps include the following: Who and what things matter in the broad situation of attending to racial, class, and sex-gender differences in cardiovascular diseases? Who and what things are involved in producing knowledge about such differences? Moving into relational questions, Shim further asks: What discourses, ideas, scientific criteria, and concepts shape how epidemiologic experts and "lay" people think about, conceive, and define the nature of racial,
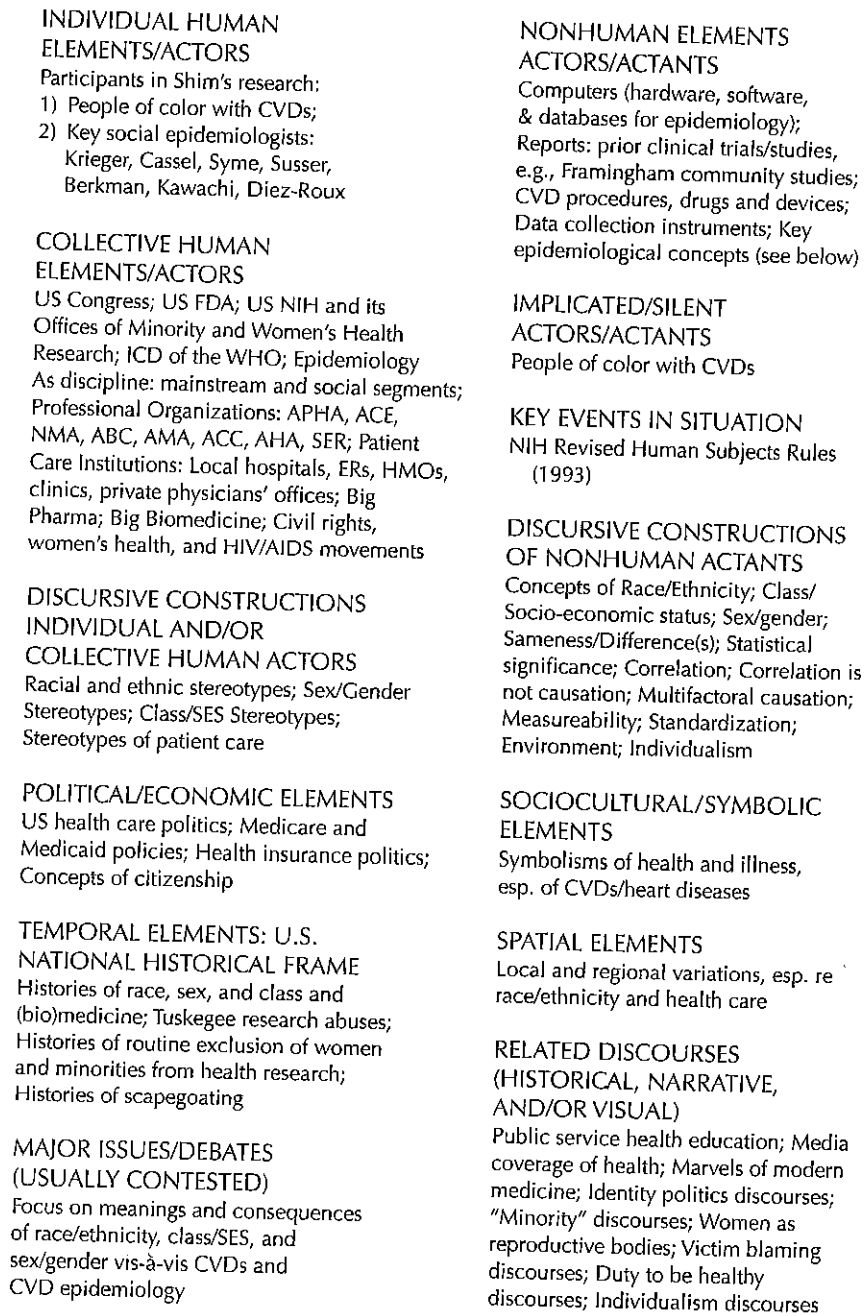
INDIVIDUAL HUMAN
ELEMENTS/ACTORS
Participants in Shim's research:
1) People of color with CVDs;
2) Key social epidemiologists:
   Krieger, Cassel, Syme, Susser,
   Berkman, Kawachi, Diez-Roux

COLLECTIVE HUMAN
ELEMENTS/ACTORS
US Congress; US FDA; US NIH and its
Offices of Minority and Women's Health
Research; ICD of the WHO; Epidemiology
As discipline: mainstream and social segments;
Professional Organizations: APHA, ACE,
NMA, ABC, AMA, ACC, AHA, SER; Patient
Care Institutions: Local hospitals, ERs, HMOs,
clinics, private physicians' offices; Big
Pharma; Big Biomedicine; Civil rights,
women's health, and HIV/AIDS movements

DISCURSIVE CONSTRUCTIONS
INDIVIDUAL AND/OR
COLLECTIVE HUMAN ACTORS
Racial and ethnic stereotypes; Sex/Gender
Stereotypes; Class/SES Stereotypes;
Stereotypes of patient care

POLITICAL/ECONOMIC ELEMENTS
US health care politics; Medicare and
Medicaid policies; Health insurance politics;
Concepts of citizenship

TEMPORAL ELEMENTS: U.S.
NATIONAL HISTORICAL FRAME
Histories of race, sex, and class and
(bio)medicine; Tuskegee research abuses;
Histories of routine exclusion of women
and minorities from health research;
Histories of scapegoating

MAJOR ISSUES/DEBATES
(USUALLY CONTESTED)
Focus on meanings and consequences
of race/ethnicity, class/SES, and
sex/gender vis-à-vis CVDs and
CVD epidemiology

NONHUMAN ELEMENTS
ACTORS/ACTANTS
Computers (hardware, software,
& databases for epidemiology);
Reports: prior clinical trials/studies,
e.g., Framingham community studies;
CVD procedures, drugs and devices;
Data collection instruments; Key
epidemiological concepts (see below)

IMPLICATED/SILENT
ACTORS/ACTANTS
People of color with CVDs

KEY EVENTS IN SITUATION
NIH Revised Human Subjects Rules
   (1993)

DISCURSIVE CONSTRUCTIONS
OF NONHUMAN ACTANTS
Concepts of Race/Ethnicity; Class/
Socio-economic status; Sex/gender;
Sameness/Difference(s); Statistical
significance; Correlation; Correlation is
not causation; Multifactoral causation;
Measureability; Standardization;
Environment; Individualism

SOCIOCULTURAL/SYMBOLIC
ELEMENTS
Symbolisms of health and illness,
esp. of CVDs/heart diseases

SPATIAL ELEMENTS
Local and regional variations, esp. re
race/ethnicity and health care

RELATED DISCOURSES
(HISTORICAL, NARRATIVE,
AND/OR VISUAL)
Public service health education; Media
coverage of health; Marvels of modern
medicine; Identity politics discourses;
"Minority" discourses; Women as
reproductive bodies; Victim blaming
discourses; Duty to be healthy
discourses; Individualism discourses

**Figure 4.   Ordered Situational Map of Race, Class, Sex/Gender,
and Cardiovascular Epidemiologies**

socioeconomic-class, and sex-gender differences? What economic, regulatory, political, and cultural conditions affect how research into such differences gets conducted? What professional and social values are taken-for-granted and by whom, and what if any cultural ideologies/discourses underwrite these? What are the consequences of varying kinds of conceptions of "difference" for how researchers conduct epidemiological studies on difference? These questions both helped to produce the map and were themselves produced by it.

DOING RELATIONAL ANALYSES WITH SITUATIONAL MAPS

Once the basic situational map is done, the next step is to start asking questions based on it and memoing your answers. Relations among the various elements are key. You might not think to ask about certain relations, but if you do what I think of as quick and dirty relational analyses with the situational map, they can be revealing. The procedure here is to take each element in turn and think about it in relation to each other element on the map. One does this by circling one element and mentally or literally drawing lines, one at a time, between it and every other element on the map and *specifying the nature of the relationship by describing the nature of that line.* This is the major work one does with the situational map. Sometimes it is tedious or silly, but at other times it can trigger breakthrough thinking and this, after all, is the main analytic goal. This is one of the ways in which considering the data very systematically can flip over into the exciting and creative moments of intellectual work.

It can be useful to make a bunch of photocopies of the messy situational map and then write or draw these relations on the copies, in different colors perhaps, to highlight particular perspectives. For example, the perspectives of Organization #1 might be very important—hold considerable power in the situation. You could highlight (in blue perhaps) that organization's perspectives on all the other actors to see which actors are attended to *and which are not,* as well as the actual contents of the organization's discourses on its "others." Silences can thus be made to speak.

Each map in turn should lead to a memo about the relations diagrammed. At early stages of analysis, such memos should be partial and tentative, full of questions to be answered about the nature and range of particular sets of social relations, rather than being answers in and of themselves. Such memos thus help to plan theoretical sampling. They can also act as analytic "place holders" to remind the analyst to return to these relational questions later in the research process and to then "complete" the memos if it seems worthwhile. One would only bother to answer those questions that remain unanswered *and* interesting. Relational analyses are not particularly exotic, but they provide a systematic, coherent, and potentially provocative way to enter and memo the complexities of a project laid out in a situational map. Relational maps can thus help the analyst to decide which stories to tell.

Our exemplar, Shim's research, is itself quite complex. She has multiple data sources, including the history of clinical research and cardiovascular research in

particular, especially research done on people of color. Here, for example, a line connecting the historical and highly symbolic event, the Tuskegee Experiment, with the people/patients of color she interviewed would be an interesting relation to memo. The Tuskegee Experiment allowed "Negro" men suffering from advanced syphilis to go untreated for decades after antibiotic treatment was available and would likely have dramatically improved the quality of their lives. The U.S. government sponsored this withholding of appropriate treatment as an "experiment" to see what would happen to their bodies (especially their brains at autopsy). The Tuskegee Experiment was dramatically uncovered in the 1970s as one of the most serious cases of human subjects abuse in U.S. research, paralleling Nazi medical atrocities. Many African Americans deeply distrust the U.S. medical system today, a distrust that is commonly attributed in part to this experiment. Intense and often insensitive research on the effects of radiation were also conducted among survivors of the nuclear bombings of Japan by the United States during World War II. Did any of the people/patients mention these events? Did any of the epidemiologists mention them? Given her study, Shim certainly needs at least a memo on this event, and to explore any mentions of such events by study participants.

In doing her relational analyses, Shim also runs smack into an absence. Although her project focuses on the meanings of race, class/SES and sex/gender, no discourse about class/SES is evident in the situational map! There is also no social movement organized around class or class-related issues. There is silence on class. How Americans can! What are the implications of these absences for the ways in which Shim's epidemiologists and people/patients make meaning about class/SES? Does it also affect their meaning-making surrounding race? Sex/gender? Could the concept of race be doing "double duty" as a proxy for class in American culture? In epidemiology? This certainly deserves a memo!

In sum, then, the relational analyses using the messy situational map should get the analyst up and moving into the data, into the analysis, and into memos. At this stage, some memos clearly need to be written as the topics need to appear in final reports anyway (e.g., Tuskegee). As a practical matter, doing the situational map and then the relational analyses it organizes can be tiring and/or anxiety producing and/or elating. Work on it until you feel stale and then take a break. This is not the same order of work as entering bibliographic citations. The fresher you are, the more you can usually see. Glaser (1978:18–35) cautions against prematurely discussing emergent ideas—that we might not necessarily benefit from talking about everything right away but rather from reflection—and memoing. I strongly agree, especially about early even if quick and dirty memoing. But we all must find our own ways of working best. For most, the work of this map occurs over time and through multiple efforts and multiple memos.

FINAL COMMENTS ON SITUATIONAL MAPS

What is a good enough situational map, and how do you know when you have one? The keyword here (from classical grounded theory) is *saturation.* You have worked

with your map many, many times—tinkered, added, deleted, reorganized. You can talk at some length about every entry and about its relations to (many if not most) other entries, if there are any relations that "matter." It has been quite a while since you felt the need to make any major changes. You don't think you have missed much of anything. You think these are the most important elements. (Of course, there are many others, but they don't seem to "make a difference" to the stories you would tell about the situation.) The final test is this: If some disaster wiped out your computer files and your notes, and all you had left was this piece of paper, could you work your way back into all the major stories you want to tell about this situation?

As the research proceeds, returning to these maps can be analytically useful. In some cases, you may want to produce simplified situational maps to include only those elements you intend to address in the final products of the research. These often become project maps, maps that display various aspects of your project (similar to basic social process diagrams in traditional grounded theory work). This is fine, but don't throw away earlier, more complicated even if very messy versions. Often one wants to go back because something was there that was important but now you are unable to remember ...

CONCLUSION

Things add up and they don't. They flow in linear time and they don't. They exist within a single space and escape from it. That which is complex cannot be pinned down. To pin it down is to lose it.
                    —Law and Mol 2002; original emphasis

In sum, my project is to regenerate and renovate grounded theory in ways that can support researchers from the social sciences, humanities, professions, and beyond in a wide array of research endeavors. The situational maps and analyses laid out here are the basics of my larger project. Here the researcher becomes not only analyst and bricouleur but also a cartographer of sorts. These maps are useful with small or large interview-based research projects as well as ethnographic field projects. Situational analyses can also be used with historical, visual, and other narrative discourse data, all of which have become increasingly salient to social life and deserve much more attention in sociological and related research. Since the codes and categories of a particular analysis can be both generated and applied across the full range of possible data sources, the new mapping approaches are especially useful for multisite research (Marcus 1999; Rapp 1999). They may also be used comparatively across different data sources. Everything is situated, and situational analyses map and elucidate this facet of postmodern understanding without claiming to be more than partial. They pin some things down and not others, and change over time.

Bowker and Star (1999:10) discuss "infrastructural inversion" wherein the infrastructure of something is (unusually) revealed and even featured. An example of this would be the Pompidou Center in Paris, where all the pipes, stanchions, conduits,

and other building innards are instead "outards"—exposed and attached to the exterior walls rather than hidden *in between* the interior and exterior walls. Situational maps and analyses do a kind of "social inversion" in making the usually invisible and inchoate social features of a situation more visible: all the key elements in the situation and their interrelations; the social worlds and arenas in which the phenomena of interest are embedded; and the discursive positions taken and not taken by actors (human and nonhuman) on key issues. This is the postmodernization of the social in a grounded theory grounded in symbolic interactionism. Situational maps and analyses resituate grounded theory after the postmodern turn in a wide variety of ways that enable us to better grasp the complexities of social life even if ultimately we "cannot pin them down."

NOTES

1. See Glaser 1969, 1978, 1992; Glaser and Strauss 1967; Strauss 1987, 1991, 1993, 1995; Strauss and Corbin 1990, 1994, 1997, 1998. It has been further elucidated by Charmaz (1983, 1995, 2000, 2001, 2003); Clarke (1991); Corbin (1998); Bartlett and Payne (1997); Starrin et al. (1997); Dey (1999); Flick (1998); Soulliere, Britt, and Maines (2001); Locke (2001).
2. Strauss's work on social worlds/arenas/negotiations was undertaken over many years at the same time that he developed grounded theory. See Clarke forthcoming, 2004; www.ucsf.edu/medsoc/anselmstrauss.
3. On the ways in which grounded theory and/or symbolic interactionism are always already around the postmodern turn, see, e.g., Clarke forthcoming, 2004: Chap. 1; Maines 2001.
4. On more individual-focused approaches, see, e.g., Behar 1996; Denzin 1997; Ellis and Flaherty 1992; Bochner and Ellis 2001; Clough 1992; Richardson 2000.
5. On more collective/meso-focused approaches, see, e.g., DeVault 2002; Burawoy et al. 2000; Marcus 1999. Particularly important to me here is the work of Hall (1987, 1997; Hall and McGinty 2002; Hall and Wing 2000) and Maines (1988, 1995). I also see Lather and Smithies (1998) as blurring micro/meso genres.
6. See Strauss 1991, 1993; Strauss and Corbin 1990, 1991, 1994, 1998. For the actual matrices, see Strauss and Corbin 1990:163, 1991:457; 1998:184; Corbin 1991:37. For analyses of the debate between Glaser (1992) and Strauss and Corbin (1990), see Locke 1996; Corbin 1998.
7. I discuss the concept of the situation elsewhere (Clarke forthcoming, 2004: Chaps. 1, 2). The works of Foucault (e.g., 1979, 1980), which "might be called a postmodern version of middle range theory" (Simon 1996:319), and that of Hall (see note 5), Goffman (1964), and Maines (1988, 1995) on the mesolevel/mesodomain have also undergirded these ideas.
8. Readers are invited to consult the published works (Shim 2000, 2002a, 2002b) for both fuller treatments and citations of the appropriate substantive literatures. My writing here on Shim's research is based on a group analysis session done much in the Straussian working group tradition. Present were Jennifer Fishman, Jennifer Fosket, Laura Mamo, Janet Shim, and I, on

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