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Situating Knowledge

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In her now classic piece, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," Donna Haraway (1991) reclaims the metaphor of vision to articulate a kind of objectivity which accounts for the historical contingency of all knowledge claims yet simultaneously maintains a commitment to some degree of "truth" to those claims. For Haraway, the seeming contradiction in simultaneously occupying both of these positions can be usefully navigated through this metaphor. Vision, she argues, while often represented otherwise, is necessarily partial as it is embodied within a specifically situated subject.

Haraway (1991, 1999) insists on recognizing the materiality, the embodied-ness of *all* perspectives. There is no longer a view from nowhere, but always a view from somewhere specific, marked, interested and inherently partial. This partial, situated objectivity-vision is politically advantageous because it insists that all positions are located within realms of political maneuvering and social change and reveals how they are so. It also allows particular embodied actors to be held accountable for what it is that they see and do with their vision.

Following on these and other articulations of "situated knowledge," scholars, especially feminist scholars, have conducted "situated" analyses of social phenomena. These have been pursued through foregrounding the perspectives, experiences, and voices of people located at the margins, as well as through de-stabilizations of the assumed "objectivity" of dominant knowledge producers via foregrounding their knowledge as equally cultured, marked and *situated* as any other. The theoretical implications of situated

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knowledges and postmodernism more broadly become more problematic, however, in trying to understand the multiplicity of positions, the cultural, economic, historical and social elements that each and all situate a particular knowledge or set of knowledges. This is methodologically problematic simply due to the sheer number of possibilities, the messiness of data collected at multiple and not necessarily congruent sites, and the dearth of traditional methodologies that can help make sense of it.

Recently, Adele Clarke (2003, 2005) theorized an "updated" grounded theory that attends to the problematics and projects of postmodernity thus providing methodological means to make sense of just these kinds of complexities and differences. Clarke articulates new approaches to analysis within a grounded theory framework that she calls situational analyses. Situational analyses utilize various types of maps to provide access points into one's data, to act as tools for drawing linkages between variously conceptualized sites and to propel the researcher into what I have called "thick analysis" (Fosket 2002). In this paper, I discuss the usefulness of Clarke's methodological innovation for empirically studying situated knowledges gleaned through my own experiences of using it to study a large-scale, multi-sited clinical trial.

Framing My Problem: Clinical Trials as Situated Knowledge

I conducted a multi-sited ethnography of a clinical trial in order to explore the emergence of new knowledge and practices aimed at treating *risk* for breast cancer (Fosket 2002, 2004, 2010). Intrigued by the recent emergence of pharmaceuticals aimed at intervening into bodies that were classified as "high risk" for breast cancer in order to reduce that risk, I sought to understand who and what were important to the construction of this new knowledge. To me, this new knowledge seemed to mark a radical shift in how pharmaceuticals are being thought about and used, how high risk for breast cancer is being conceptualized, and how prevention is being understood and enacted. I wanted to explore these shifts in knowledge as they were emerging, to track and make sense of the competing discourses budding around this new phenomenon called *chemoprevention*.

To tackle these questions, I chose to focus on one large-scale chemoprevention clinical trial. Often depicted as the "gold-standard" for biomedical knowledge production, a clinical trial seemed to be an ideal location to explore the construction of knowledge *in action*. I collected data from multiple sites and positions in order to grasp how the trial looked from each. Instead of a few devoted people working full time to conduct the research, the clinical trial I studied actually consisted of numerous people working with varying levels of commitment and time, and included as important players those located in key organizations as well as in other often surprising and sometimes marginal sites and sources. As I began to uncover the layers of

experience, action and meaning that constituted the trial, it became increasingly evident that, while ultimately producing what appeared to be a coherent set of knowledges defined as objective, the knowledges being produced were fragmented, partial, and very much situated.

However, in order to get to a place where I could begin to make sense of what all of this meant, I had to find my methods. I began with a desire to conduct a social worlds analysis that evolved into situated analyses as I delved further into the process. I next describe these methods.

Situated Analyses

A central focus of grounded theory has long been on uncovering the basic social process – the kinds of action – at the heart of the phenomena being studied. In contrast, Clarke (2003, 2005) argues that we need to move beyond a sole focus on action to a more broad and full focus on the entire situation in all of its many complex parts. The theoretical roots of this lie in social worlds/arenas theories first articulated by Anselm Strauss (1978a,b, 1991) and Howard Becker (1982) and elaborated by Adele Clarke (1991; 1998; Clarke & Montini 1993). In his theoretical work which formed the basis for his methodological innovation of grounded theory, Anselm Strauss (1978b) understood social order as negotiated and thus fluctuating, unpredictable, emergent and always contingent. From this emphasis on group action and organizational dynamics, Strauss (1978a) and Becker (1982) proposed social worlds/arenas theory where social worlds constitute the shared realities within which people act, interact, and make meanings of their situations in ways that give rise to shared realities. Within social worlds and the substantive arenas of shared concerns and commitments in which those worlds intersect, knowledge is constructed in an ongoing fashion vis-à-vis the everyday practices of whatever the world is focused around.

Adele Clarke (1991, 1993) asserts that social worlds/arenas theory offers a useful way to understand the historical construction of particular phenomena by examining the social worlds that participated in creating it. Within this frame, distinctive constructions of knowledge can be viewed as emerging within particular social worlds which share specific goals and have stakes in constructing knowledge in particular ways. In social worlds/arenas theory, theoretical possibilities open up to view knowledge as collectively constructed in everyday practices. Here, social worlds (rather than individual positions) are understood as resources for knowledge production. As articulated by Clarke, social worlds/arenas theory understands the negotiated nature of knowledge construction as conflictual and shaped by power. This theory provides a dynamic and interactive lens through which to view multiple constructions of knowledge because it acknowledges the constant contentions going on among *and* within social worlds over how a particular

phenomenon will be constructed and the ways in which these interactions are, ultimately, mutually constitutive.

With her conceptualization of situational analyses, Clarke moved these theories further (2003, 2005). Here, social worlds/arenas theory expands to include as consequential elements everything within a given situation. That is, it is not just the social worlds and their human and nonhuman elements that situate and shape knowledge and practices, but histories, discourses, symbols, institutions, material things, and anything else conceived of as present in the situation. Thus, in theorizing the processual and interactional character of knowledge construction, it is important to grasp the interactions and practices engaged in not just by humans, but also by all of the other consequential elements in the situation. What Clarke's theorizing offers is a concrete analysis of knowledge that not only notes how it is situated, but actively deconstructs what constitutes that situation.

Within this framework, an understanding of the work of scientific knowledge production requires an understanding of everything in the situation: the workplaces and their organizations, scientists and other workers, theories, models, research materials, instruments, technologies, skills and techniques, sponsorship and its organization, regulatory groups, audiences, consumers, and so on. Each of the relevant elements is not merely contextual (i.e., background) but conditional. Each element is an integral aspect of the situation itself, constitutive of the practices and contingencies of the research work that constitutes the very construction of knowledge. Even those elements that are not *physically* present in the situation are part of the situation in a very real sense.

In order to analyze these complex and multi-sited situational elements, Clarke (2003, 2005) articulates various types of maps that can be used as methodological strategies in doing situational analyses. Specifically, she describes: situational maps, which plot all of the relevant elements in the situation and enable analyses of their relationships; social worlds/arenas maps, which illuminate the social worlds, collectivities, and arenas of commitment which engage with the situation and; positional maps, which lay out the interests, commitments, and positions explicitly taken (or absent) in various discourses found within the situation.

Clarke describes situational analyses as approaches which, among other things, can help free a researcher from "analytic paralysis." One source of analytic paralysis that emerged for me resulted from questioning how to make sense of the multiple elements emerging as I interrogated various sites of the clinical trial. Following grounded theory, I had been continuously coding and writing memos throughout my data collection process. Indeed, these analytic processes led me to the various sites at which I collected data, helped form the questions I asked interviewees, and probed me deeper into my data. However, at some point, I felt lost amidst mountains of data which I intuitively knew were interrelated, but which I could not initially figure out how to wrap my brain around. In attempting such a potentially disparate

and non-unified or universal analysis, I needed tools that could tie elements together, conceptually linking the various situated positions, identifying their interrelationships, and seeing as complexly woven together what might otherwise appear isolated. Situational analyses provided such tools for me. By sitting down in the middle of my living room floor with a huge piece of paper, paralysis broke as I began drawing circles and lines, mapping the various positions and elements that I was grappling with. As I sketched this and subsequent maps, I was clarifying relationships between elements, understanding who and what was important to the situation, and was, for the first time, able to conceptualize the wholeness of what I was studying – rather than fragmented bits of interesting ideas and data.

At the same time as my needs prompted the use of tools, so too did the tools themselves shape my analysis. As I began mapping I clarified and extended my research agenda – realizing how very situated the situation truly was. For me, mapping the various social worlds and other elements in STAR provided great insights into my data. The maps themselves turned out to be valuable artifacts, visually representing the complex array of factors that make up the STAR trial. To illustrate my use of situational analysis, I present and briefly describe here my own use of the first two types of maps, situational and social worlds/arenas, for my research on a clinical trial. (For a greater elaboration of the clinical trial and my conceptualizations and uses of these maps please see Fosket [2002].) These maps reflect my own partial and situated knowledge and do not exhaust every possibility, but rather represent those elements and actors that emerged as most salient in the fieldwork that I conducted.

Locating the STAR Trial

The clinical trial I studied is called the Study of Tamoxifen and Raloxifene – or the STAR trial. Its purpose was to compare tamoxifen – a breast cancer treatment drug that had recently been FDA-approved for use in healthy women to reduce their risk of breast cancer with raloxifene – a drug thought to similarly reduce breast cancer risk without as many side-effects. The STAR trial is located within the newly emerging chemoprevention arena. Chemoprevention, the practice of ingesting pharmaceuticals or nutraceuticals to reduce the incidence of disease, is a relatively new phenomenon within the arena of breast cancer and I used the social worlds/arenas map to conceptually locate its emergence at the intersections of groups, organizations, and interests that had, until the trial was begun, maintained separate spheres. Figure 1 locates the chemoprevention and STAR trial arenas within larger intersecting arenas. The chemoprevention arena is located at the center of this map. This arena includes the STAR trial and also includes other clinical research and practices currently ongoing around chemoprevention that I do not take up in my research. The chemoprevention arena is itself situated at the intersections of the treatment

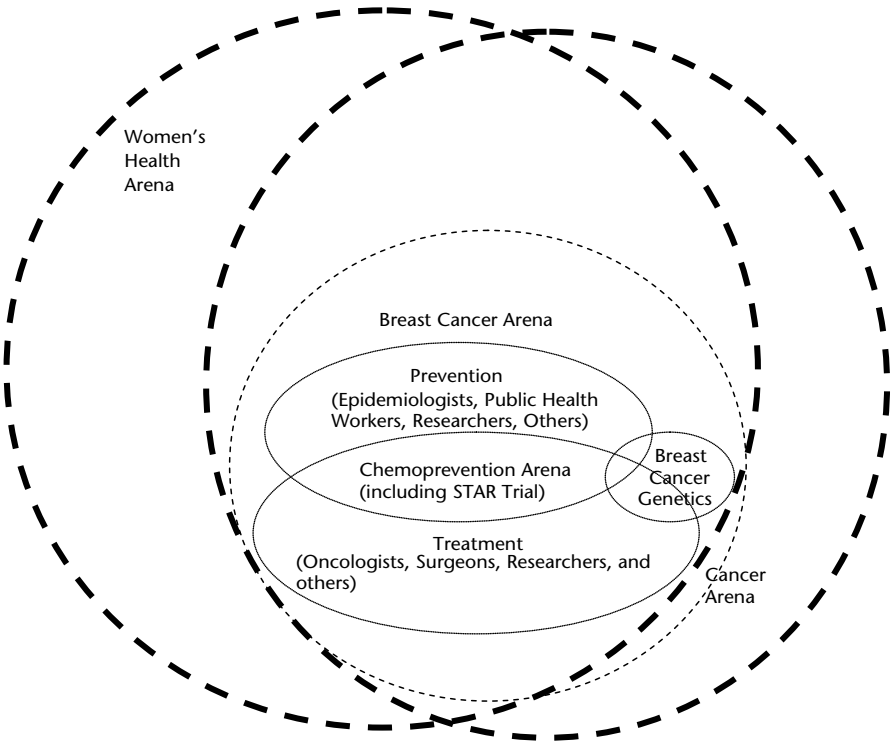

Figure 1: Locating the STAR trial

and prevention spheres of the breast cancer arena. Because chemoprevention involves administering drugs previously used as treatments to prevent breast cancer, it represents an innovative *prevention* endeavor taken up primarily by *treatment* oriented oncologists. Thus, it begins to blur the lines between treatment and prevention in unprecedented ways. I have also included breast cancer genetics as an arena that intersects with treatment, prevention, and chemoprevention arenas as well. Also a newly emerging arena, breast cancer genetics currently represents another example of a site where treatment and prevention lines are becoming increasingly fuzzy, as genetic assessments may trigger more active prevention strategies.

Both the treatment and prevention spheres are part of the larger breast cancer arena which includes myriad other elements, worlds, and arenas that I do not depict here. The breast cancer arena itself is located at the intersections of the women's health and cancer arenas. These two arenas each represent much larger arenas in and of themselves and, here, they overlap around the breast cancer arena. (They also overlap around arenas that have emerged for other types of cancer impacting women, not represented here). The women's health and cancer arenas are themselves located in the much larger domain of U.S. health care.

Mapping the Situation: Who/What Matters to STAR

Upon entering the field of STAR, one of the first things I realized was that this "site" itself consisted of multiple sites. It was comprised of many different elements complexly organized and webbed together to form what I ultimately conceived of as the "STAR trial arena." Nonhuman actants (things of various kinds from furniture to technologies to discourses), social actors, body parts, research protocols, organizations and paperwork represent key elements in the constitution of the trial, and critical activists and passionate advocates are central. Additionally, the deeper I delved into the research, the more obvious and important the historical and political situatedness of STAR became. By requiring the researcher to map out all of the "analytically pertinent human and nonhuman, material and symbolic/discursive elements of a particular situation as framed by those in it *and by the analyst*" (Clarke 2005:87), situational maps draw out complexities and reveal which anticipated and unanticipated elements of the situation matter.

Figure 2 represents my situational map, highlighting the most salient elements. The categories used here are not absolute, but reflect what ended up being most meaningful to me and central to my analysis as I made sense of my data.[1] An important aspect of situational maps as analytic tools is their use in uncovering relations between elements.[2] In the remainder of this section, I narrate this situational map, highlighting certain of the key elements and relationships in-depth.

Multiple cultural discourses, ideologies, and/or rhetorics prevalent in U.S. society and/or in U.S. biomedicine are key elements to the situation of STAR because they are consequential in shaping the ways in which breast cancer is thought about, treated, and its "risks" attended to. The STAR trial is made possible not just through securing the necessary tools, bodies, resources, researchers and other material needs, but also through the management of credibility and legitimacy derived through ideological, cultural, and discursive elements (Epstein 1996). Certain cultural ideas about women's bodies, about the origins of disease and the most appropriate sites for prevention, about the dangers of risk and the importance of classifying the normal and pathological distinctly, about what counts as good research and scientific knowledge, and what the causes, consequences and appropriate responses to cancer are, all create a situation in which STAR appears as a *credible* solution to a particularly constructed problem of "breast cancer risk." For instance, I argue that the prominence of a "downstream approach" to healthcare, an approach that focuses not on prevention of disease but on its treatment, already well accepted in the U.S., itself contributes to chemoprevention's credibility as a reasonable prevention option. In a framework already accustomed to treating symptoms of individuals, the idea of treating risk is a logical extension of normative biomedical ideology and practice. Thus, "downstream medicine" becomes an important discourse in my map.

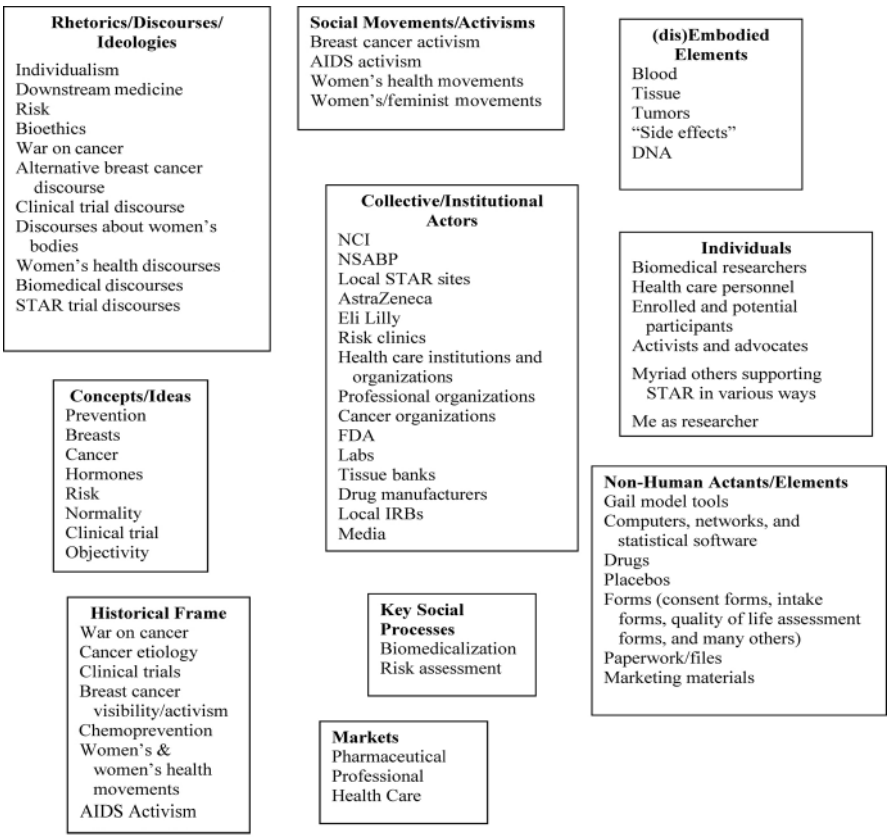

Figure 2: STAR trial situational map

As another example, "clinical trials" appear as a discourse in my map. By this I refer to the dominance of clinical trials as the most credible form of biomedical knowledge construction (Marks 2000), and this history and current stronghold powerfully shape the situation of STAR.

In addition to rhetorics/discourses/ideologies, key social processes are also important elements in my situational map. Biomedicalization and its attendant processes of standardization and risk assessments are social processes very much at work in the shaping of the STAR trial. Biomedicalization is a social process through which increasing aspects of the life world become identified by and imbued with medical and technoscientific meaning and subject to interventions via the vast armamentarium of technoscientific tools, knowledges, and organizations at the disposal of biomedicine (Clarke et al. 2003, 2010; Fosket 2010). In our elaboration of this concept, however, we emphasize that biomedicalization is not just imposed from above, but is part of a cultural system with which individuals also pragmatically and often

inescapably engage. In this way, biomedicalization is also an ideology – a way of thinking about and acting toward health and wellness – that is prevalent and consequential in shaping the subsequent knowledges and practices related to health.

The STAR trial is also very much a product of the growing emphasis on risk assessment which is part of biomedicalization. Populations of women previously considered "normal" are transformed into "potentially ill" populations as a result of their classification into "high risk" categories. With biomedicalization comes an increased attention to risk and the transformation of bodies designated at risk through pharmaceutical interventions. These risk assessments are fundamental to the credibility of a trial like STAR in that they create a group of women who are considered at high enough risk to be legitimate users of chemoprevention drugs (Fosket 2004, 2010).

In constructing a situational map, nonhuman elements are important features consisting of materials, tools, and other "things" in the situation. Highly significant nonhuman actants in the STAR arena are the pharmaceuticals themselves, tamoxifen and raloxifene. Computers, computer networks, special software, and the Internet are also all critical nonhuman actants in the situation of STAR. Without computer networks and standardizing specialized software programs, STAR could not function as the multi-sited research project it is.

Blood, tissue, tumors, DNA, and other body parts are taken from women's bodies, and stored, analyzed, transported, isolated, and used in multiple ways as data for STAR. As these elements become preserved, packaged, sent from place to place, banked, etc., they become nonhuman actants in the production of knowledge about chemoprevention and breast cancer risk. However, I also term these "(dis)embodied elements" and highlight them here so as not to efface their human origins. These once embodied elements of research participants' bodies are deeply consequential for STAR as they represent the raw data which shape actions on a daily basis (i.e., if a segment of breast tissue is found to contain cancerous cells, interactions with and participation by the woman to whom that breast tissue belongs will change profoundly). These elements and the knowledge regarding the dangers and/or efficacy of tamoxifen and raloxifene that they reveal, will ultimately guide the representation of the findings of STAR and subsequent actions taken as a result of it.

Many, many different individuals are key players in STAR and appear in the situational map. Each researcher, each woman engaging in the enrollment process, whether or not she ultimately chooses to join, each doctor referring women into the trial, or making the choice not to do so, and every other individual making choices and taking actions that are related to STAR are consequential because it is ultimately the collaborative, interactional, and collective actions of each of these individuals that propel and shape the clinical trial. There are direct relationships between many of these individuals

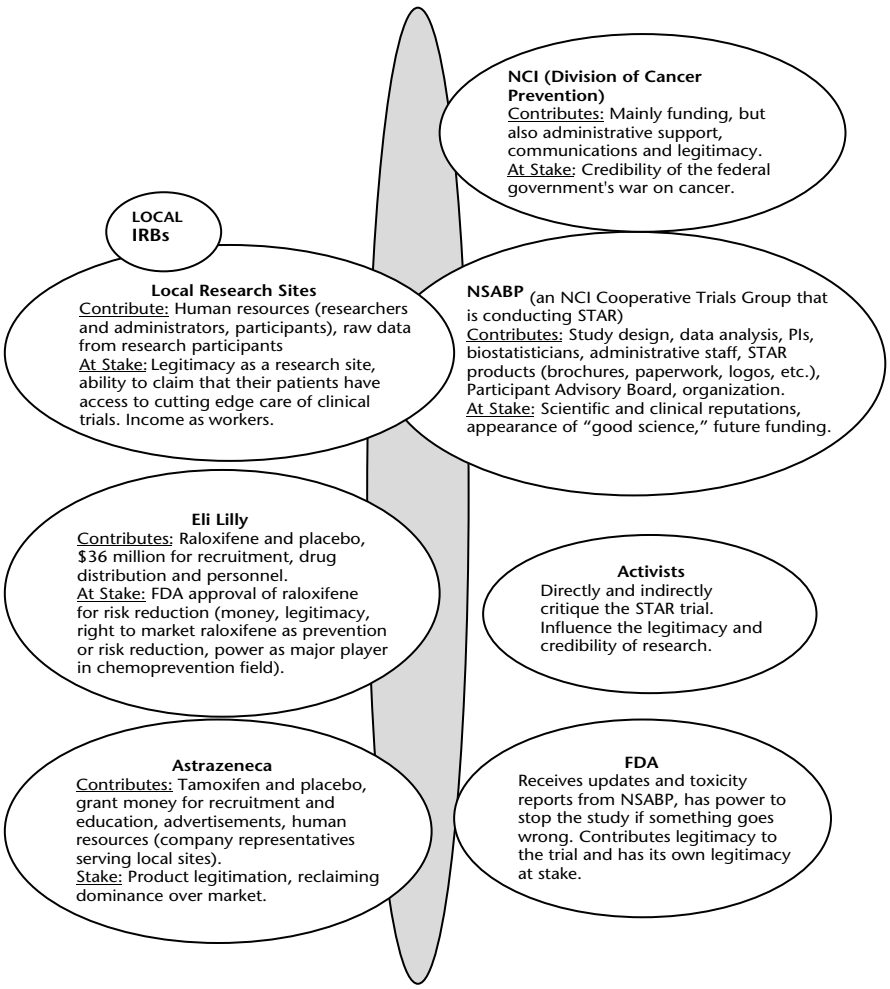

Figure 3: STAR trial social worlds map

and other elements in the situation – they are linked to organizations listed; they procure and engage with the nonhuman actants and (dis)embodied elements; they are shaped by and act within marketplaces and social processes described; and many of these individuals are also situated within particular collectivities – social worlds whose interests, contributions, and stakes in the trial are elaborated later in my social worlds map (see Figure 3).

In addition to those who make a difference in STAR through their everyday actions and interactions around the trial, other individuals represent key players in the situation due to their role in the emergence of chemoprevention, risk assessment, breast cancer, or other arenas that shape the situation of STAR. These include those individuals who posed the theories and

instigated, popularized, or paved the way for key research and conceptual shifts that led to chemoprevention and eventually, to STAR.

As consequential actors within the organizations, institutions, and social worlds that conduct, monitor, oppose, support, and represent STAR, innumerable individuals could be cited as important to the situation, including the person who monitors the books and signs the paychecks, the person who sustains the lives of those who spend long hours working in the labs that process potential participants' blood samples, and endless others. What is interesting and important about highlighting this is that it demonstrates the sheer numbers of people involved, to varying extents, in the collaborative interactions required to conduct such scientific research. The work of so many visible and invisible individuals plays its part in shaping just how and why STAR emerges in the ways it does. While some individuals are important elements in and of themselves, they are also important in terms of the collective organizations in which they are situated.

There are myriad collectivities and institutions that represent key elements in STAR including the professional organizations to which researchers belong which publish journals and hold conferences where knowledge about STAR is traded; those innumerable collectivities to which individuals important in STAR belong and which shape their ways of being in STAR; and the various institutions and organizations that play key roles in STAR. In addition, other health care organizations and institutions also play key roles in the situation of STAR. They are important to STAR as sources of potential participants, and STAR recruitment efforts target health care providers located in a variety of organizations and institutions. They are also important as groups with whom local sites and NSABP need to cooperate for data collection purposes: pathology reports, mammograms, physical results, etc.

Finally, various media constitute an additional important element in the situation of the STAR trial. Media fundamentally problematize the ways in which knowledge is accessed, disseminated, and constructed. Popular media have been important players in STAR from the outset when national media began to run "news stories" of STAR that double as recruitment opportunities for the NSABP, complete with a 1-800 number to call "for more information" at the end of the news story. In these moves, news items are transformed into marketing strategies, "infomercials" for biomedicine and for the pharmaceutical companies whose drugs are on trial. Since then, coverage has continued and media outlets are considered and used as crucial sites for STAR recruitment. They are also used as tools for activists' critiques. Media are also important as sites of direct to consumer advertising of tamoxifen, which shapes the trial in important ways already discussed.

Scientific literature media have also been important sites wherein claims and counter claims about STAR and chemoprevention take place. During the early 1990s, the scientific literature was a source of not insignificant critique of tamoxifen as chemoprevention. The controversies over the early

design and conduct of the Breast Cancer Prevention Trial were discussed in letters to the editor of *The Lancet* (e.g., Costa 1993), news articles in *Science* (e.g., Marshal 1995), and other media sources. There was much concern expressed in these articles regarding giving toxic drugs to healthy women to prevent a disease that strikes with relative infrequency, and whether the evaluation of the "risk" of drugs should be different for prevention than for actual cancer therapy (e.g., Love, 1995; Pitot, 1995; Trufy, 1993).

Another important way to think about collectivities is in terms of social movements. The collective organizing of social movements in health and illness must be considered key elements within any biomedical situation as these movements have brought about profound changes in the ways that biomedicine, including biomedical research, is thought about and practiced. Several social movements are pivotal to the situation of STAR, most importantly breast cancer movements, women's health movements and AIDS activism. These movements are important for the changes they have provoked in policy, institutions, treatments, and in discursive constructions of health, wellness, disease, research, and the meanings and rights of patients. STAR has most certainly shaped by the historical gains of these movements as well as by current activism.

Discourses, social processes, markets, nonhuman actants, individuals, collectivities and social movements all represent central elements constituting the situation of STAR. While many of these elements also and simultaneously come together around various other issues, this particular conglomeration of actors, actants, social forces and processes are those which I conceive as mattering to STAR. As this analysis highlights, clinical trials like STAR do not take place in a vacuum as biomedicine and biomedical research are not separate from, but are intimately part of, larger cultural and social contexts. Next, I focus in even more closely to elaborate the key social worlds that constitute STAR.

Mapping the STAR Trial Arena

While the situational elements described in the previous section are constitutive of the situation of STAR, this is only true in so far as there are committed groups, individuals, and organizations that engage in the work of making STAR an actual arena of action. Social worlds are the sites of action around STAR within which the elements already described come to matter. Social worlds mapping involves identifying the collective commitments and actions organized into social worlds that come together to constitute the social arena of interest (Clarke, 2005). Within social worlds analyses (e.g., Clarke & Montini, 1993), one begins by empirically specifying the key players (individuals and groups) who are active around the phenomena of interest, as well as those important in the historical construction of the phenomenon.

STAR is an arena consisting of intersecting social worlds concerned about the issue of breast cancer chemoprevention. Figure 3 represents a simplified

version of my social worlds map of STAR, including who they are, their stakes and contributions. There are a couple of important things to notice in viewing this map. First, the filled in oblong running down the middle of the map represents the STAR trial. The circles that overlap with this oblong represent social worlds "officially" linked to STAR – that is, those who have an organizational role in STAR, are considered a part of the trial by those who designed it and/or have a legal and/or fiscal role in the trial. Those social worlds not overlapping represent social worlds that I conceptualize as crucial to the STAR arena, but that are not "official" participants. Additionally, some of the circles overlap with each other and others do not. The overlapping circles represent social worlds that are interconnected in some official capacity – fiscally, organizationally, and/or in terms of personnel.

Discussion

The elements, social worlds and arenas represented by these maps and described in the previous sections illuminate my efforts at situating the knowledge constructed in clinical trial research regarding women's bodies, risks, and the appropriateness of biomedical intervention. The maps enabled me to organize and make sense of the data I had collected and the preliminary thoughts I was having about a vast number of things that, unrelated in many ways, all shared common linkages to the production of knowledge at the site of the STAR trial. Once visually available to me in the form of a map, I could begin to systematically flesh out each element, understand its relationship to STAR and to other elements, know what needed to be elucidated about them, and decide on next steps in my research process. In these very concrete ways, the methodological maps aided my process of undertaking a situational analysis of a clinical trial. In this discussion section, I further explore ways in which situational maps can help materialize some of the sometimes elusive goals of feminist and postmodern theory in the concrete practices of empirical research.

Difference and Complexity

One of the striking benefits of situational mapping is the ability to make sense of and analytically compare and contrast non-congruent data sources. Conducting a multi-sited ethnography that was revealed to be increasingly complex as I undertook its mapping meant that my data derived from heterogeneous sources through heterogeneous methods. I conducted archival research in medical journals on the emergence of chemoprevention drugs; textual analyses of FDA proceedings as well as popular media articles; in-depth qualitative interviews with various types of participants; participant observation at meetings; and analyses of images. Whereas another project

might hone in on one of those data sources as primary and the use the others for framing or contextual background information, for me, each source was considered of comparable importance to my understanding of the situation of STAR. The maps allowed for this heterogeneity as each element can be added in the map and considered as part of the analysis.

This is increasingly valuable to sociology and social studies of science in particular as more and more cross-disciplinary collaborating and intellectual borrowing means that research studies are often composed of a hybrid of methods – sociologists including serious historical analyses, utilizing anthropological ethnographic methods, and/or analyzing texts or cultural representations. Situational analyses provide an important tool for engaging with such transdisciplinarity in ways that at the same time produce richly sociological analyses.

Simultaneously to providing tools for analyzing such postmodern projects, situational analyses are also valuable in helping to initiate such projects and create useful complexity and depth to what might otherwise be thin. In my mapping of the STAR trial, multiple elements arose that I had not previously considered important and propelled me in new directions, delving me deeper into the complexity of the situation of STAR.

Relationships and Blurring the Macro/Meso/Micro

One of the central uses of situational analyses is to discover through mapping, relationships between elements. Clarke (2005:142) writes of situational mapping, "All mapping strategies are at base relational. This is a radical aspect of the approaches offered here compared to 'normal' social science and positivist approaches that are at base atomistic, based on supposedly isolable 'variables' and intentionally decontextualizing (for lack of a better term)." Additionally, because these elements can be heterogeneous, these relationships are often relationships amongst elements located at distinct conceptual levels. In this way, situational maps help to blur distinctions between micro/macro/meso levels. They help to understand dynamic interrelationships between elements at all of these levels and how many may exist at multiple levels simultaneously.

For instance, through doing relational analyses using my situational map I was able to see linkages between discourses and social processes of consumerism, practicalities of clinical trial research practice and the nonhuman elements of the study pills. Women participants in STAR are required to take two pills a day, one each of the drug they have been randomized to and a placebo made to look like the drug they were not randomized to. This is an interesting necessity brought on by the marketing of pharmaceuticals, such that tamoxifen, sold under the brand name Nolvadex® by AstraZeneca and raloxifene, sold under the brand name Evista® by Eli Lilly, are each purposefully

created to look distinctive and thus inspire brand recognition. Yet such distinction works at cross-purposes to a double-blind randomized controlled clinical trial, where *not* recognizing what brand is being taken is paramount. Instead of providing anonymized drugs, the pharmaceutical companies provide their own drug *and* a placebo that looks just like it. This "solution" exemplifies the dominance of consumerism, where logos proliferate, and the right to market one's brand is not to be hindered even during clinical trials.

Relativism and Positionality and Reflexivity

While situational analyses maintain a commitment to researching a particular phenomenon of interest from multiple perspectives, one of the benefits of situational analyses is that such projects do not assume or imply a theory of relativism. Haraway argues, "Relativism is a way of being nowhere while claiming to be everywhere equally. The 'equality' of positioning is a denial of responsibility and critical enquiry" (Haraway, 1991). Within Clarke's articulation of situational analyses, positional maps in particular provide this kind of attendance to the differences in power and responsibilities that shape the various positions investigated.

Within positional maps, the analyst explicitly marks the actants and knowledges in the situation as *interested*. It is not possible within this type of analysis to claim a "view from nowhere" because the researcher is literally specifying the positions taken by those that constitute the situation. Through each of the types of maps, the research is constantly situating the people and things of import to the situation within real worlds of interests, politics, passions, histories, and more. In this way, it is not just *other* positions that become glaringly obvious, but one's own as well.

Inevitably, in conducting this kind of situational analysis, the researcher must consider themselves as elements in the situation. In this way, reflexivity becomes an intimate part of the research agenda. Clarke (2003, 2005) asserts in her description of situational mapping that researchers own experiences of researching should be considered data in mapping. In uncovering the situatedness of the STAR trial, I needed to see the ways in which I am part of that situation. This was evident in thinking through how my presence and particular situatedness in the world of breast cancer shaped the research in fundamental ways – it shaped who I had access to and what kinds of things those that I interviewed were ready to share. My entrance into the world of breast cancer politics began in 1993 when I attended my first Breast Cancer Action (BCA) meeting with my teacher and friend, Christine LaFia who had recently been diagnosed with breast cancer. We soon became active participants in the organization, drawn to its radical and feminist politics and unflinching telling of difficult truths about breast cancer. In 1996 Christine died of breast cancer and my experiences with her illness, dying and death

drew me even more passionately into the world of breast cancer scholarship and activism. In the almost ten years since, I have continued to be a part of Breast Cancer Action, always as a member and sometimes as an activist volunteering at various venues. Indeed, some of my fieldwork experiences at national conferences were paid for by BCA where I was both a fieldworker and an activist, collecting data for my research and writing excerpts for BCA's website. I have made many friends through my work with BCA, and received invaluable support and expertise for this research. Mostly I have found this connection and my clearly messy involvement with my object of study of benefit to my research. I am constantly learning from the activists I engage with and know much more about the arena of breast cancer than I could ever possibly know if I were not so involved.

However, I am also aware that my positioning poses some dilemmas. I am clearly not a neutral observer. My very first foray into the world of chemoprevention was to write a letter to the editor criticizing the emergence of chemoprevention for breast cancer as an extreme example of individualizing prevention and shifting prevention policy away from locating fundamental causes of breast cancer. I have not strayed too far from this position since. Though my mind has been changed and certainly expanded in numerous areas, I began this research an interested participant in the field and these interests are surely evident throughout my research.

In addition to this larger dilemma, my positioning within my field of study also posed practical dilemmas. Many people who I interviewed formally or informally at conferences and meetings knew of my connection with Breast Cancer Action. While this connection opened many doors (indeed, a couple of people explicitly stated they were only agreeing to be interviewed by me *because* of my connection to BCA), it also closed others or made for suspicion and skepticism. I had people refuse to participate in my research because my connection with breast cancer activism was seen to situate me as irremediably biased on the issues I was studying.

Howard Becker (1967) describes circumstances in which as social scientists we find ourselves critiqued for aligning with the interests of some of those who we study and thus producing biased knowledge claims about particular social phenomena. I find this analysis most useful for understanding my own position within my field of inquiry. He argues that the circumstances in which such accusations of partiality emerge, and those situations in which they do not emerge, are revealing for what they tell us about credibility. The social scientist is apt to find her or his knowledge claims de-legitimated when the knowledge produced represents, or appears to represent, the perspectives of marginalized groups or individuals, the less powerful elements in the situation. In contrast, representing the perspective of dominant groups rarely incites such critique of partiality or interestedness. "We can use the notion of a *hierarchy of credibility* to understand this phenomenon. In any system of ranked groups, participants take it as a given that members of the

highest group have the right to define the way things really are" (Becker, 1967: 241). There is an assumption that those at the top have privileged access to information and thus any knowledge derived from such superordinates will automatically be more credible than those produced by subordinates. Moreover, Becker argues that these assumptions are imbued with morality such that we feel beholden to respectfully accept the definitions of reality imposed by those in dominant positions. Thus, within this framework, by refusing to reproduce this hierarchy of credibility and by asserting heterogeneous definitions of reality including some from the perspectives of non-dominant groups and individuals, my own productions of knowledge are vulnerable to dismissal on the grounds that they are "biased."

In addition to my experience in the field detailed above, situational analyses provoke me to explore how the preconceptions, ideas, passions, and interests shape the very conceptualizations of the problem to begin with. In mapping the trial, I have most definitely emphasized not just those elements that seemed most important to me, but also those that are most interesting to me. What is interesting about a situational map is that you can include even elements that you did not end up researching. In this way, the maps can make more evident one's own biases as a researcher. Seeing an element there that I know I chose not to pursue forces me to ask myself why not. In this way, constant reflexivity is integral to situational analyses and any notion of relativism is replaced by bold awareness of positionality.

Conclusion

Utilizing situational analysis, my research highlights concrete ways in which the situation shapes the production of knowledge – or, in other words, illuminates situated knowledge in action. The knowledge that can be, and is being, produced by STAR is contingent upon the everyday work practices of those producing that knowledge. And those everyday practices are constrained and enabled by the various situational elements shaping the work – shaping various interpretations of what is politically and ethically feasible, what is economically practical, scientifically do-able (Fujimura 1987) and so on. Utilizing situated analyses, my project makes vivid the "situated" part of situated knowledge, highlighting various ways in which situatedness shapes knowledge production in the everyday practices of conducting STAR.

Notes

1. Also, this situational map does not exhaustively list all of the elements in the situation, but rather lists those that ended up most central to my analysis – previous versions of the map contained elements that ultimately did not remain pertinent.

2. Part of the work involved in this technique is to draw lines between each element and the other elements and identify what the relationships are – the nature of the line. I undertook this process to fruitful ends, but the resultant mass of lines and words defies visual reproduction here. It also provoked memos about the relationships.

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