

“YOU HAVE TO BE YOUR OWN DOCTOR”:
NEOLIBERAL RECONFIGURATIONS OF
EXPERTISE ON THEBUMP.COM

by

Amanda Friz Siska

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ABSTRACT

Expertise is increasingly relied upon in the making of decisions, particularly decisions pertaining to health and pregnancy. And yet, recent interactions between scientists and the American public have highlighted the fact that scientific expertise has become a contested, if not rejected, form of knowledge. To more fully assess and understand the state of scientific communication in today's public discourse, this thesis examines a specific expert-lay relationship: that of pregnant women and their healthcare professionals. To examine this interaction, I look at a particular website, TheBump.com, which posits itself as providing "the inside scoop on pregnancy and parenting." Through a close reading of the webpages, discussion forums, and technical structure of the website, my analysis shows how neoliberal operationalizations of expertise work to complicate the expert-lay relationship in ways that offer no clear resolution. Specifically, I argue that neoliberal sensibilities reconfigure expertise by deploying authenticity, risk, and apomediation such that pregnant women are vested with the task of identifying, consuming, and correctly applying expertise to their decision-making. I conclude by arguing that we can understand expertise in neoliberal societies as being defined and deployed to attribute knowledge, responsibility, and choice to individuals with the ultimate result of reifying and protecting neoliberal capitalism itself.

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CHAPTER 1

INTRODUCTION

The 20th century saw rapid changes in the medical practices and social mores surrounding birth. For centuries, information about pregnancy was the purview of the feminine sphere (Freedman, 2003). Indeed, many Western cultures saw a woman's place within the family as a healer and nurturer, utilizing "plant remedies and folk medicine" to treat family members' illnesses (Freedman, 2003, p. 207). In these cultures, it was "natural" that the keepers of the most authoritative knowledge on pregnancy and delivery would be women, and midwives' specialized knowledge granted them "quasi-professional standing in their communities" (Freedman, 2003, p. 207).

All of this began to change as scientific knowledge of the body began to circulate in exclusively male spheres (such as universities and medical schools, which excluded women until only relatively recently). "For centuries women were doctors without degrees, barred from books and lectures, learning from each other [...] They were called 'wise women' by the people, witches or charlatans by the authorities" (Ehrenreich & English, 2010, p. 25).

Slowly, changing cultural mores and improved tools granted doctors greater and greater access to the inside of the body and eventually the female body. At the dawn of the 20th century, births at home with the oversight of a single doctor were still rather

common. As routine medical practice began to incorporate information from the developing fields of gynecology and obstetrics, a medicalization of pregnancy emerged such that by midcentury hospital births were more common than home births. In this system, doctors represented an authoritative formal expertise that was rarely questioned, let alone contested.

The cultural battles of the 1960s and 1970s initiated a shift in this authority. Male doctors had come to view their female patients “primarily as reproductive bodies” (Freedman, 2003, p. 207), a construction that became hotly contested by second-wave feminist activism. Haraway (1997) notes that this gynecological, exclusively male, newly visual access to the interior of the female body prompted feminists in the 1970s in the U.S. to seize the master’s tools – the gynecological speculum – so they might see inside themselves. “Vision itself seemed to be the empowering act of conquerors” (Haraway, 1997, p. 193). Perhaps in part due to the activism of the 1960s and 1970s, the 1990s saw the rise of patient autonomy. It could no longer be assumed every birth would take place in a hospital under a doctor’s care; options for birth and delivery exploded just as new technologies, procedures, and medications likewise assisted couples who struggled to conceive.

The rise of these and other reproductive options has signaled a shift in the doctor-patient relationship, one I see related to the expert-lay relationship studied throughout the science and technology studies (STS) literature. Indeed, the extent to which new ideologies of governance, particularly neoliberal sensibilities, have functioned to reconfigure expertise poses an interesting question. Utilizing one website and its online community as a case study, this research investigates the extent to which online

communities and the websites that house them define and deploy expertise as vital to making decisions regarding one's pregnancy.

To investigate this problem, I plan to use textual and new media evidence drawn from a popular pregnancy-focused website. TheBump.com (or simply, "The Bump") is one of a partnership of websites developed by a husband and wife team, Carley Roney and David Liu, and presently owned by their company, XO Group, Inc. The franchise began with a single website, The Knot (<http://www.theknot.com>), and has since grown to include four websites total. The first three websites, called The Knot, The Nest, and The Bump, center around three lifestyle milestones: marriage, home-buying, and pregnancy, respectively. The fourth, The Blush, debuted in early 2012 and is focused on style and fashion. Each of the partner sites is easily accessible from the others via color-coded tabs present at the top of every page. The websites are linked to each other such that user information is shared and carried across each of them: once a user's need for one site has subsided (say, after a couple's wedding day has passed or after a home buyer has closed on a house), the user is automatically directed to the next website in the franchise (for example, from The Knot to The Nest and from The Nest to The Bump), which creates a sense of "naturalized" progression among the websites and their respective topics. The websites also feature community forums, ask-the-expert pages, articles, how-to videos, applications, a gift store, and social media interface. As editor-in-chief, Roney, along with a small editorial staff, is responsible for the content on the websites. The Bump editors also encourage users (as we shall see) not only to read the website's content but to join and actively participate in their online community. This project will seek to explain

how the textual elements and technical design choices of The Bump enable or constrain discursive interactions as well as situate expertise in relation to lay publics.

This website merits study because The Bump is a unique artifact with the potential for exposing the lay-expert relationship this project is interested in studying. To begin with, The Bump differs from other Health 2.0 websites in that there is a centralized content management team recruiting experts and courting users with specific design and content elements. These factors are touted as allowing The Bump to perform a neutral or a purely educational function in the discussion of pregnancy online; The Bump does not profit from encouraging pregnant users to give birth in a hospital or at home with a doula.

This neutral positioning is complicated by the fact that the company does make money off its users via its online store of baby- and pregnancy-related products (such as toys, clothes, tools, and gifts) as well as advertisements, although the ads are not on every webpage and do not involve the kind of data mining and tailoring for which social media have become notorious. Indeed, The Bump is a source of revenue – as are all XO websites – for its parent company, whereas other eHealth and Health 2.0 websites typically represent the online presence of, say, a hospital or an insurance company.

These factors that distinguish The Bump from other Health 2.0 websites encourage a unique relationship between the users and the website itself, which has ramifications for how information is presented in its pages and how its user community interacts with that information. Thus, The Bump provides a rich and complicated environment for layperson-expert interactions vis-à-vis health information, which permits a level of analysis that might not be possible using other Health 2.0 websites.

Theoretical Foundations

For this project, I adopt a theoretical perspective that arises from the subfield of science and technology studies (STS). Born out of history of science and sociology of science research, STS examines the way societies interact with, shape, and are shaped by scientific knowledge and technological artifacts. A major theoretical theme in STS is the assumption that both social factors (such as culture, politics, economics, and discourse) and material factors (such as a technological artifact's design, the arrangement of DNA within a cell, or the contours of Cumbrian geography) are vital factors to consider. For this project, I analyze *The Bump* with STS theories framing my understanding of expertise and pregnancy.

Thus far, STS scholars have studied pregnancy broadly in terms of the technologies used in prenatal care, especially focusing on the sonogram (Georges, 1996; Rapp, 1997); the discourse surrounding conception (Martin, 1991), miscarriage (Layne, 2000), and infertility (Cussins, 1996); the way modeling is used and transposed in reproductive sciences (Friese & Clarke, 2012); and as a touchstone for understanding gender and science (Oudshoorn, 1994; Rapp, 1999). Additionally, research on women as users of new media has tended to focus on the ways the Internet has (re)shaped women's relationships with technology by providing social support, especially during pregnancy (Lowe, Powell, Griffiths, Thorogood, & Locock, 2009; Madge & O'Connor, 2005, 2006) and by granting greater access to information, whether it be regarding pregnancy (Madge & O'Connor, 2006), child care (Foss, 2010), or health in general (Koch-Weser, Bradshaw, Gualtieri, & Gallagher, 2010). Although pregnancy has been studied

frequently in the STS scholarship, not enough attention has been paid to it as a touchstone for studying expertise.

STS Perspectives of Expertise

Vital to this project is the way expertise is defined and deployed. A review of the scholarship will help in shaping this discussion. Indeed, just such a call for the increased study of expertise in general was made in Collins and Evans' seminal piece, "The Third Wave of Science Studies." In it, the authors argue that the study of science from within STS has evolved to reflect the contemporary state of science's relationship with the public. Thus, the first wave of science studies, they argue, operated within an authoritative view of science in which knowledge flowed from scientists and technologists down and directly to the public (Collins & Evans, 2002). The second wave in a sense reacted to this first wave by questioning the process of scientific knowledge production and even the very epistemological foundations on which science rested. The second wave is the period of science studies when many scholars conceived of all knowledge, including the scientific, as socially constructed (Collins & Evans, 2002, 2007). "Second-wave" style studies of science occurred outside of STS as well, such as Leah Ceccarelli's (2001) seminal investigation into the rhetoric of science from a critical rhetoric perspective and the examination of the use of metaphor in scientific discourse of Condit et al. (2002).

Collins and Evans (2002) argue that the study of science from an STS perspective stagnated during this second wave, necessitating a "third wave" or phase in order to more closely study the ways science is cited, challenged, and appropriated in the new millennium. Collins and Evans argue the stagnation is partially a problem of scholars'

own making, arising from the foundational challenges made in the second wave: “If it is no longer clear that scientists and technologists have special access to the truth, why should their advice be specially valued?” (Collins & Evans, 2002, p. 236). Collins and Evans’ third wave, then, would entail the specific study of expertise itself in order to “provide for a more systematic analysis of normative judgments about who had expertise and who had not” (Collins & Evans, 2007, p. 143). The third wave would allow for the study of expertise about expertise, a study begun in their book, *Rethinking Expertise*. It is this conversation initiated by Collins and Evans to which this thesis strives to contribute. In this vein, then, this thesis investigates the extent to which online communities and the websites that house them construct, challenge, accept, and appropriate expertise for making personal decisions, utilizing The Bump as a case study.

Within the STS literature, expertise with regard to communication technologies has been addressed in a variety of ways. A survey of this literature reveals four key views of expertise in relation to technology and new media studies: the functional view, the formal view, the experiential view, and the distributed view. I shall discuss each of these in turn as each view of expertise will come to bear on this research project in its own way.

The functional view of expertise is the most common throughout the scholarship, probably owing to its easy fit with the social constructionist assumption undergirding second wave science studies. In this view, expertise is demonstrated via function: the proof of one’s expertise is in its use. Requiring only time and curiosity, expertise, according to the functional view, can be attained outside of formalized educational systems and certifications by anyone willing to work hard enough and long enough with

the technology. Relevant social groups construct definitions of acceptable demonstrations of expertise. The functional view of expertise tends to be invoked, implicitly or explicitly, whenever scholars are studying skilled laypeople. For example, although Postigo (2003) was not studying expertise explicitly, his findings nonetheless have relevance. Postigo studied AOL volunteers in the 1990s who occupied a liminal position between users and designers: They were not paid employees of AOL, but due to their experience with troubleshooting technical problems, they were granted special access and compensated with free Internet access. Under this system, AOL's volunteer guides gained a kind of expertise that was closely tied to the usage of one's knowledge, regardless of formalized certification (Postigo, 2003). The volunteers' expertise, in this case study, was achieved and mobilized through their hobbyist engagement with the Internet, and only after volunteers gained more experience were they recognized as "remote staff" for AOL and thus codified as "experts" (Postigo, 2003). Likewise, researchers have found that non-professional users of such technologies as the ham radio (Haring, 2003), telephone (Fischer, 1994), videogames (O'Donnell, 2009), the Internet's code (Coleman, 2009), and robots (Kleif & Faulkner, 2003) have been able to achieve mastery of their objects of interest via use and experimentation – i.e., tinkering – alone. The functional view of expertise, then, asserts that one gains expertise by doing and thus becomes an expert if and only if one's knowledge can be deployed in a useful way.

Complicating this view of expertise is that knowledge which cannot be attained solely through a spare-time hobby. For example, the functional view does not explain how one might gain expert knowledge of, say, the functions and diseases of the human body by tinkering in one's garage. Opposing the functional view, then, is a more

traditional, formalized view of expertise. In this perspective, experts are authorities whose legitimacy is encoded in a socially accepted signifier, such as a medical school diploma (Himmel, Meyer, Kochen, & Michelmann, 2005). This definition of expertise is most commonly thought of when one speaks colloquially of an “expert” or “specialist.” Indeed, this view of expertise is implicitly present in the formation of a panel of experts tasked with distilling their knowledge into a brochure on the risks of using an intrauterine device as described in Dugdale’s analysis of materiality and policy-making (Dugdale, 1999). Drawing from an authoritative conception of knowledge, this view of expertise aligns with Collins and Evans’ (2002) first wave of science studies as well as Eysenbach’s (2007) model of intermediated knowledge transfer. The formal view of expertise assumes that only a select few individuals ever acquire the necessary knowledge in a given field, and therefore access to it must go through these special few, who are “marked” by their certifications. The certification process actually represents both a vital distinction between the functional and formal views as well as a potential area of overlap: Both views rely on the judgment of others to validate one’s expertise. The difference is whether that validation comes from peers or from institutionalized procedures.

It is possible to be considered an “expert” outside of informal or institutionalized certifications or credentials. Such is the case for the experiential view of expertise. This view is similar to the functional view in that it defines expertise in relation to some set of experiences. However, the experiential view of expertise differs from both of the views discussed above in that the experience of the expert is not necessarily applied, earned, or enacted but instead is embodied. Thus, authenticity, not authority, becomes paramount in

proving one's expertise (Brown & Michael, 2002). Such was the case, for example, in McIntosh's (2009) study of elders in a tribe in Kenya and the controversial practice of blessing politicians, which grants to them a bit of the elders' expertise. This study shows how embodied authenticity can legitimize expertise via nostalgia and essentialism: Those elders who could trace their roots to specific places and traditions through specific lineages were more "authentic" and thus their expertise and practices were more valid (McIntosh, 2009). As we shall see, experiential expertise will be vital to the study of users on The Bump, as women who have given birth before are granted "expert" roles in the forum discussions due to their personal, embodied experiences.

Lastly, new media have created a new view of expertise which perceives it to lie with uncovering the "wisdom of the crowd" or crowdsourcing problems (Jenkins, 2004). In this view, each individual person has a relevant piece of wisdom to contribute to a problem, and thus expertise is distributed throughout humanity. Finding a solution entails tapping into this collective wisdom, a process now most commonly facilitated via Internet-based technologies (Brabham, 2008). Proponents of this view (Levy, 1999) proclaim a distributed expertise leads to the freeing of information and the democratization of knowledge, and yet, this view (and the functional view as well) is vulnerable to a kind of cooptation in which freedom from experts morphs into the freedom to bear grave risks in high-stakes decisions.

Neoliberalism and Expertise

Implicit in this discussion of risk and responsibility is the notion of decision-making occurring within a neoliberal society. Critical theories of neoliberalism will help to explain how a greater emphasis has come to be placed on ubiquitous expertises

wielded by large numbers of members of the lay public while simultaneously shifting decision-making responsibility away from contributory experts and their formal expertise. Critical theories define neoliberalism as the “ideological helpmeet” (Sender, 2006, p. 135) of free market economic policies that come to be applied to issues of political economy and social policy (Rose, 1996).

One neoliberal imperative relevant to this project is its treatment of knowledge. DuPuis and Gareau (2008) explain that in neoliberal governance, “policy decisions are increasingly based in knowledge measuring the particular impacts of a decision, ‘particularist knowledge’ as presented by separate stakeholder groups” (p. 1213). The authors ultimately question “whether a de-legitimized state and a devalued technocratic analytics [trappings of neoliberal governance] is the right way to gain the knowledge necessary to govern ourselves” (DuPuis & Gareau, 2008, p. 1226). The trouble is that neoliberal imperatives often assume a rational individual who can and often is educated (frequently self-educated) to make proper choices (Glasgow, 2012); a common theme is that of the individual giving informed consent after informing herself, however superficially that information might have been gathered and processed.

Individuals are constituted as customers who wield personal choice, another neoliberal imperative, to optimize their happiness and success (Ouellette, 2004). Indeed, the imperative of choice is a

practical strategy that emphasized the liberty of consumer choice, not only with respect to particular products but also with respect to lifestyles, modes of expression and a wide range of cultural practices. Neoliberalization required both politically and economically the construction of a neoliberal market-based populist culture of differential consumerism and individual libertarianism. (Harvey, 2005, p. 42)

In neoliberal societies, personal choice is vaunted as the solution to every problem. The assumption is that permitting individuals to decide for themselves which option best actualizes their happiness and safety will allow the market to naturally regulate which options are available. Hence, consumerist models become the primary incarnation of the imperative of choice.

In the final neoliberal imperative relevant to this project, individuals must bear the risk and responsibility for their personal choices, even if complete and accurate information was inaccessible during the decision making. Thus, “individuals who fail to thrive under neoliberal conditions can be readily cast as the ‘author of their own misfortunes’” (Ouellette, 2004, p. 225). Indeed, the valorization of personal choice often comes with the injunction for personal responsibility, which in the presence of risk is transformed into personal blame.

Neoliberal ideologies necessitate several shifts, notably “from authoritarian government to individual responsibility; from injunction to expert advice; and from centralized government to quasi-governmental agencies and media, including television, as sources of information, evaluation, and reproach” (Sender, 2006, p. 135). Notable for this study is Sender’s mention of the shift from injunction to advice and from centralized authorities to informal information sources. Experts and lay publics still interact in neoliberal societies, but the roles and responsibilities for everyone involved has been reconfigured.

I see this shift as a dynamic expert-lay interaction that can also work against the edicts of neoliberal ideology. The dynamism of this interaction will be best understood through three primary modes or registers of decision-making that are in play: authentic

embodiment, in which a neoliberal self-reliance is primarily employed; authority and risk, in which reliance upon formal expertise is confounded by the assigning of responsibility to individuals; and appomediated evaluation, in which reliance upon peers is harnessed to evaluate specialists' recommendations using meta-expertises and meta-criteria.

STS scholarship has specifically engaged the intersection of neoliberalism and expertise, much of it under the label of "scientific governance." For example, DuPuis and Gareau (2008) found that expertise and democracy are often linked in neoliberal governance. "This turn away from state expertise, what we call the 'anti-technocratic consensus,' while stemming from democratic motivations, may actually make environmental governance less democratic" (DuPuis & Gareau, 2008, p. 1212). Irwin (2006) argues there is a shift in the discourse from public misunderstanding of science to public distrust of science, and that this discourse seems to appeal to transparency and openness as solutions. This shift might be seen as appeasing neoliberal imperatives for access to information and authenticity as vital to decision-making. Levidow (2007) explains: "Neoliberal governance invokes 'sound science' for approving safe products, as a basis for consumer choices; it puts the burden of dialogue on the private sector" (p. 23). This scholarship has shown that scientific expertise in particular can be and has been deployed in the accomplishment of specific neoliberal imperatives.

This does not mean, however, that the two can be easily extricated. As Jasanoff (2003) argues, "We need both strong democracy and good expertise to manage the demands of modernity, and we need them continuously. The question is how to integrate the two in disparate contexts so as to achieve a humane and reasoned balance between

power and knowledge, between deliberation and analysis” (p. 398). This question becomes even more salient in healthcare contexts. Sandall et al. (2009) argue neoliberal reconfigurations of expertise are beginning to emerge in maternity care even in publicly financed healthcare systems. These reconfigurations “tended to reflect a neoliberal focus on consumerism, which has contained a rhetoric of ‘empowerment’ of user’s rights, and the promotion of patients’ self-efficacy, choice and personalized care” (p. 537).

Claim and Rationale

It is at this point that I take up my project: specifically, I argue that The Bump and its online community operationalize neoliberal imperatives via specific and unique reconfigurations of expertise as relevant to authenticity, risk, and apomediation. There is more work to be done within STS regarding the intersection of expertise and ideology, particularly scholarship that interrogates how and why expertise is shaped and deployed by neoliberal sensibilities. In this project, I strive to parse how and where this reconfiguration of expertise happens on The Bump, where formal expertise meets experiential and functional expertises.

The value in this scholarship lies not only in its aim to advance STS studies of expertise, but also its potential to bridge two similar yet parallel scholarly conversations: rhetorical criticism’s rhetoric of science and STS’s study of science via rhetorical methods. It has been noted by other scholars that the disciplines of communication and STS share common notions about the causality, development, and consequences of communication technologies (Boczkowski & Lievrouw, 2008). More than that, the two disciplines can benefit from each other:

For STS, communication studies has provided an extensive body of social science research and critical inquiry that documents the relationships among mediated content, individual behavior, social structures and processes, and cultural forms, practices, and meanings. For communication studies, STS has provided a sophisticated conceptual language and grounded methods for articulating and studying the distinctive sociotechnical character of media and information technologies themselves as culturally and socially situated artifacts and systems. (Boczkowski & Lievrouw, 2008, p. 950)

In many ways, the study of scientific expertise and its relationship to and with lay publics is a question often taken up by communication scholars, in particular those studying rhetoric and mass media. Indeed, the question of how to legitimize one's expertise in the face of cultural, political, and technological challenges is not unlike the rhetorical situation discussed by rhetoricians in analyses of public address.

Connections: The Rhetoric of Science

Recognizing this connection, science as an object of study has itself been taken up within the subdiscipline of rhetorical criticism in a line of research called "the rhetoric of science." This body of scholarship begins from a rhetorical perspective and utilizes rhetorical methods in its exploration and articulation of science and ideology.

An early example of rhetoric of science scholarship was Prelli's (1989) analysis of scientists as rhetors. Using a Neo-Aristotelian approach (which seeks to discover if a given rhetor in a single text successfully uses one or more of Aristotle's five canons of rhetoric), Prelli found that scientific rhetors, in communicating to each other, do utilize the canon of invention, including applying all three appeals (logos, pathos, and ethos), as well as tailoring messages to according to the situation and audience.

The study of the rhetoric of science was re-energized with Leah Ceccarelli's (2001) seminal work, "Rhetorical Criticism and the Rhetoric of Science." In her piece,

Ceccarelli argues that science, at its core, is essentially a set of human practices. As such, all scientific practice is subject to the same human constructions as any other activity. In this way, Ceccarelli mirrored the social construction of science work done in STS during its second wave. Indeed, she argues that more productive research will come from integrating the conversations held by rhetoricians and STS scholars, here referred to by one of the fields STS grew out of, the sociology of science:

In fact, it is especially important that rhetorical criticism be added to the already growing sociological study of science, because otherwise, scholars may fail to recognize how scientific texts are made up of both the carefully crafted rhetorical strategy and the articulatory practices of a cultural conjuncture. (Ceccarelli, 2001, p. 321)

Despite Ceccarelli's astute observation, scholarship in both the rhetoric of science and STS rarely cite each other. What is more, scholarship within the rhetoric of science tends to emphasize a single scientist as the rhetor (see, for example, Campbell, 1986; Gross, 1988), often to the detriment of broader social, political, and public contexts. This move ignores advances in both STS and critical rhetoric that insist on complicating the agency of the singular, purposeful rhetor/scientist. This project will strive to balance both contemporary STS theories and critical rhetorical methods in investigating how and why specific definitions and deployments of expertise in fact operationalize and reify neoliberal imperatives.

Method

Therefore, for this project, my method begins grounded in rhetorical criticism. For DeLuca and Demo (2000), "rhetoric is defined as the mobilization of signs for the articulation of identities, ideologies, consciousnesses, communities, publics, and cultures" (p. 253). If we think of discourse as a kind of repository of signs, symbols, and

meanings related to and circulating around a concept, then rhetoric is about deploying those signs, symbols, and meanings (Campbell, 1974). Rhetorical criticism, then, is neither mere description nor the application of Aristotlean taxonomies, but as a method is a systemic analysis with claims that are supported by data from the texts.

Specifically, my method for this project is a critical rhetorical approach to analyzing *The Bump*. McKerrow (1989) specifies that “a critical rhetoric seeks to unmask or demystify the discourse of power. The aim is to understand the integration of power/knowledge in society [including] what possibilities for change the integration invites or inhibits” (p. 91). This kind of critique “recognizes the existence of powerful vested interests [...] and commands rhetorical analyses not only of the actions implied but also of the interests represented” (Wander, 1983, p. 18). Rhetoric’s “turn” to critical methods issued a new definition of ideology that goes “beyond a limited orthodox Marxist view of ideology” (McPhail, 1996, p. 341) and instead encompasses the “historically-determined values learned in the process of socialization” (McGee, 1980, p. 47) that “organize consent to a particular social system” (Cloud, 2004, p. 288). Additionally, critical rhetoric focuses on “the various workings of power, dominance, subordination, and marginalization” (Flores & Moon, 2002, p. 183) and “the relationship between discursive struggle and social and institutional practice and change” (Livesey, 2002, p. 140). Contemporary critical rhetoric continues to thrive and “unite our understanding of social actors and material forces, and to undermine the potentially oppressive contradictions implicit in our ideological commitments” (Lucaites & Condit, 1990, p. 21). In these ways, critical rhetoric strives to be an instrument of social justice.

In critical rhetoric, there is a specific treatment of the artifact of analysis as well. McGee (1990) argues that part of the role of the critic necessarily involves making or remaking the text by choosing what is text and what is context. “Critical rhetoric does not begin with a finished text in need of interpretation; rather, texts are understood to be larger than the apparently finished discourse [...which] is in fact a dense reconstruction of all the bits of other discourses from which it was made” (McGee, 1990, p. 279). New media in particular bring to light the fragmented nature inherent in any text. For example, The Bump’s textual, discursive, and technical elements are all pieces, fragments spread across the thousands of pages whose addresses begin with “<http://www.thebump.com/>” and thus are housed within its domain. For this reason, Karlyn Kohrs Campbell (1974) argues that we also make rhetoric when we do rhetorical criticism.

Although few STS scholars have adopted a critical rhetorical approach, close textual and discourse analyses have been frequently employed, such as Akrich’s (1992) concept of inscription, Woolgar’s (1991) concept of reading technology as a text, Law’s (2009) material-semiotic method, Bendien’s (2013) concept of patchworks of discourse, and Pinch and Bijker’s (1989) social construction of technology (in which analysis of the discursive work done by relevant social groups helps to uncover the development of a given technology). This trend is further evidenced by STS scholars employing rhetorical methods specifically, such as Kay’s (2000) analysis of the language and metaphors used by geneticists to describe genetic code, Keller’s (1996) metaphorical analysis of developmental biology discourses, Doyle’s (1997) poststructural analysis of biology and physics, and Lawson’s (2011) study of military discourse and chaos theory. Arguably, Shapin and Schaffer’s (2011) discussion of Robert Boyle’s community building as

dependent upon specific “literary technologies” is perhaps a rhetorical analysis by another name.

Throughout the literature on expertise, little of the ramifications with regard to informed consent, risk, and personal choice is discussed. For example, while the formal view of expertise is sometimes criticized for locking away information that “wants to be free” behind specialists-cum-gatekeepers (Johns, 2009), the hegemony of the functional and distributed views is little discussed. This lacuna actually represents a ripe opportunity to apply a critical perspective. Indeed, the critical rhetorical approach will allow me to closely analyze my text’s discursive and rhetorical dimensions while also being sensitive to the role power plays in constructing both knowledge and expertise. Because expertise is constructed rhetorically by not only specialists and lay publics, but also through broader ideological and cultural factors, a critical rhetorical method will best serve me in gathering data and marshaling my claims. Recent scholarship in rhetoric has shown that, methodologically, rhetorical criticism can engage such artifacts as images (Lucaites & Hariman, 2001), the environment (DeLuca & Demo, 2000), and the role of new media in social protests (Cottle & Lester, 2011) while also addressing the question of power. Critical rhetoric has been successfully used to study these nontextual “texts” and will be the best tool for closely reading an artifact such as a website.

To operationalize this method, I perform a close textual analysis of The Bump, including the articles posted by staff writers and invited experts, the messages posted by users in both the discussion forums and the comments sections, and the technical structure of the website itself. I recognize that in analyzing a new media technology such as a website necessitates sensitivity to its material and technological elements (Callon,

1986; Latour, 1992; Law, 1989, 2009) and how they function to assign and circumscribe power (Akrich, 1992; Latour, 1992; Woolgar, 1991), so I therefore incorporate these methodological perspectives into my method as well. In studying the technical and discursive content of The Bump, I closely read this content for emergent themes regarding the definition, application, acceptance, and contestation of expertise.

Having already used The Knot as a resource for my own wedding in 2010, I still had a user account which I could use to access The Bump's user features.¹ Although the majority of The Bump's content is publicly available (such as the articles, videos, question-and-answer sessions, and discussion boards), I wanted to also see what changes are available to users (regarding avatars, signature blocks, and so on). I used this account to post one comment in a comments section to see how user posts are treated, but otherwise I did not use my account to interact with other users. I continued to log in to The Bump for a year, noting changes in the website's organization and design as well as following popular discussions on the message boards. Throughout this analysis, I was guided by two research questions:

RQ1: How and why has defining and appropriating (or eschewing) specific kinds of expertise come to be seen as important to making decisions about one's pregnancy?

RQ2: What themes emerge as central to the reconfiguration of expertise as an operationalization of neoliberal imperatives and sensibilities?

¹When first visiting these websites again for this project, I was automatically directed to The Nest, since my wedding date had passed but I have not purchased a home yet. I had to specifically activate my account with The Bump.

CHAPTER 2

EMBODIMENT AND AUTHENTICITY AS EXPERIENTIAL EXPERTISE

As usage of the Internet increased in the late 1990s, many early adopters envisioned the new medium would lead to egalitarian reforms now that people could communicate without the hindrance of their physical appearance (and the potential prejudices it might incur). And yet this utopian ideal is far from the reality of online communication (Nakamura, 2002). Indeed, virtuality necessitates a reembodiment through lived, physical experience even as it champions the possibility of disembodiment. “Where virtual reality equipment or a text-based virtual world online offers a possibility to (re)construct our appearance or even leave our physical gendered and race-marked bodies behind us, women are traditionally obliged to resort to their groundings in personal physical experience” (Sundén, 2001, p. 222).

In this chapter, I discuss the intersection of embodiment, online contexts, posthumanism, and knowledge, all of which work to legitimize personal experience as a wellspring for expertise. As Gies (2008) argues, embodiment still plays a large role in discourse online, being used to establish identity and as a central topic of discussion. Indeed, the online context is interesting because rather than encourage disembodiment or a severing of the mind from the body (in other words, the typical Cartesian move), The

Bump seems to encourage embodiment. That is, compared with other online communities,¹ The Bump seems to emphasize the body, particularly individual bodies, such that the online, disembodied context is somewhat mitigated. In a way, The Bump encourages not just embodiment, but a reembodiment that strives (even if it never fully succeeds) to overcome the absence of the physical body. This discursive emphasis on the body is throughout The Bump – from discussions of how conception works to advice for eating and exercising “for two” to explanations of reproductive science (such as how Cesarean sections are performed or how in-vitro fertilization works). We might say that these discussions of the body revolve around the biological body – discussing and explaining how the physical organism we each inhabit generally works.

Simultaneously, The Bump discussion forums utilize a rhetorical body, or the way the biological body serves as an epistemological source and legitimizing trope. Things are known to be true because the body permits personal experience of this truth. This truth draws from bodily sensations as manifest in individual, unique bodies to validate an experience as authentic. The reembodiment of The Bump casts this experience as a sensuous, individualized, gendered expertise. In terms of the taxonomy presented in Chapter 1, this expertise would be classified as “experiential expertise” because it is outside of a formal credentialing process but is not the wisdom of many or the expertise of the aggregate. If embodiment is the context for acquiring a specific kind of individualized knowledge – the personal experience – then contexts that remove the body (such as websites and discussion forums) necessitate a kind of posthuman reembodiment in order to relegitimize the body as a source of personal expertise.

¹ Many online communities such as Reddit, Facebook, Twitter, and 4chan encourage a presence of mind over an allusion to bodies. This is particularly salient, for example, in Facebook’s status update prompts that ask “What’s on your mind?”

Posthumanism provides a useful lens for thinking about the users' expertise along the disembodiment/reembodiment dimension. N. Katherine Hayles writes,

Embodiment differs from the concept of the body in that the body is always normative relative to some set of criteria. [...] In contrast to the body, embodiment is contextual, enmeshed within the specifics of place, time, physiology, and culture, which together compose enactment. Embodiment never coincides exactly with 'the body,' however that normalized concept is understood. (Hayles, 1999, p. 196)

Thus, "[e]mbodiment is akin to articulation in that it is inherently performative, subject to enactments [...]. Whereas the body can disappear into information with scarcely a murmur of protest, embodiment cannot, for it is tied to the circumstances of the occasion and the person" (Hayles, 1999, pp. 197–198). Hayles' point suggests that enactments of embodiment can occur through technologically mediated discourses, which is what I argue occurs on *The Bump*. We might additionally think of Hayles' distinction between the body and embodiment as not unlike the difference between sex and gender. While the former is a physical trait one is born with, the latter is a social construction with a performative dimension (Butler, 2006). Thus, to synthesize Butler and Hayles, both gender and embodiment are able to be performed according to contextual specifics such as "place, time, physiology, and culture." The biological body itself might not physically enter *The Bump's* online forums, but embodiment can be and is rhetorically utilized.

This reembodied expertise is possible only through posthuman conceptions of the subject. Rather than embracing a knowing, singular Cartesian subject, posthumanist thought "turn[s] Descartes upside down" by making the body the existential and epistemological premise for subsequent thought. Foucault provides an excellent starting place for conceptualizing this posthuman subject, as his work helps to rethink the Cartesian subject in terms that open the possibility for posthuman thought. Although

many philosophers before Foucault worked to complicate or otherwise disrupt our conception of the knowing, cogitating subject (Nietzsche in particular comes to mind), Foucault worked to articulate this disruption in relation to notions of power (Foucault, 1995, 2003). As the object of discourse, “man² cannot posit himself in the immediate and sovereign transparency of a *cogito*” because “[m]an is a mode of being which [...] extends from a part of himself not reflected in a *cogito* to the act of thought by which he apprehends that part” (Foucault, 1973, p. 322). Likewise, however, man is neither truly an object since he cannot “inhabit the objective inertia of something that, by rights, does not and never can lead to self-consciousness” (p. 322). Subjectivity for Foucault is contingent upon the ways we think of ourselves as objects of knowledge. This concept decenters the knowing subject. Hence Foucault argues the subject is produced by power, just as the body itself is produced by regimes of truth (Foucault, 2003).

Knowledge, power, and discourse produce subjectivities that change, shift, merge, and overlap. Hence, Allucquere Rosanne Stone (1996) argues computer and information technologies, particularly those that create virtual realities, complicate (if not nullify) the traditional assumption of one person inhabiting one body; instead, the subject should be thought of as “warranted” by the body. Within the posthumanist literature, there is a frequent connection of the posthuman with current technological advances (especially, but not limited to, virtual reality). In this sense, we might see the posthuman as not unlike Donna Haraway’s (1990) cyborg. “The human subject for cyborg feminists is closely tied to their conceptualization of the cyborg, with an emphasis on openness, fluidity and

² Foucault differentiates between “man” and “humans” throughout *The Order of Things*: “we are so blinded by the recent manifestations of man that we can no longer remember a time – and it is not so long ago – when the world, its order, and human beings existed, but man did not” (p. 322). In this section, I will keep with his distinction and use “man” to mean “mankind” or “humanity” and “humans” to mean “people, both male and female.”

situatedness where technologies are inscribed into the material reality of living bodies” (Sundén, 2001, p. 217). In Foucault’s footsteps, Sundén regards the subject as an “ongoing, open-ended process with a sensibility for local, material conditions that form female subjectivity. It is a subjectivity structured around a multiple set of coordinates such as class, race, age, and sexuality which all work together in the creation of identity” (2001, p. 217). Posthumanism has clear epistemological implications as well. Hayles (1999) argues that “[w]hat counts as knowledge is [...] radically revised, for conscious thought becomes an epiphenomenon corresponding to the phenomenal base the body provides” (p. 203).

Foucault (1995) argues that torture in the Middle Ages elicited truth through the authenticity of the victim’s pain. Bodies, particularly bodies in pain, were seen as sources of an authentic truth that was unable to be manufactured. This trope continues on The Bump as a rhetorical strategy that is mobilized by embodied performances online. Thus, in order to understand how experiential, embodied expertise is deployed on The Bump, we will also have to understand authenticity as a rhetorical strategy.

Authenticity is itself a difficult concept to theorize, precisely because its very definition is a matter of contention. Questions such as “authentic to what or to whom?” and “authentic according to whom?” lie at the heart of weighing and measuring authenticity. Because authenticity is an especially salient issue in identity politics (see Butler, 2006; Fraley, 2009; Rodman, 2006; Shugart, 2008) it is dangerous to set forth a concrete and stable definition of a concept that draws from particular power structures and affects the status of identity. Nevertheless, claims of authenticity can be mobilized as a rhetorical strategy in powerful ways (Hardt, 1993; Senda-Cook, 2012; Shugart, 2007,

2008) and can situate rhetors to make particular truth claims. Indeed, the very “idea of authenticity implies relations with others and, therefore, confronts issues of domination and control as well as egalitarian forms of social interaction” (Hardt, 1993, p. 52). I would add to this that in implying relations with others, authenticity also signals certain experiences as tied to social constructions of truth or reality such that an authentic experience is a true experience and thus a source of personal, embodied knowledge from which to draw. Thus, while I do not wish to claim that certain experiences of pregnancy are more “authentic” or “true” or “real,” it nevertheless seems as though the users of The Bump sometimes make such claims as a strategy for legitimizing their own experiential expertise. I wish to analyze the ways such claims are made and deployed in the construction of an epistemology that resides outside of the traditional, authoritarian doctor-patient information model.

Sensation, Embodiment, and Expertise

One of the most common forms of challenging expert information within The Bump’s website comes in the form of the users emphasizing their own embodiment. The disembodied-embodiment tension plays out on The Bump as well, as the users discuss not only their pregnant bodies but also use the body discursively to establish credible identities and to legitimize knowledge claims. The discussions in the message boards in particular serve to illustrate the ways the users employ a body rhetoric to challenge expert knowledge and traditionally accepted credibility cues.

One discussion thread in particular highlights the reembodiment in play in the pregnant users’ discourse. This thread, one of many that discusses the usage of epidurals, was sparked by a news article posted on Slate, a news magazine website

(<http://www.slate.com>). The article claimed to settle an ongoing debate as to the safety of epidural injections during delivery, by reporting on the conclusions of a variety of medical studies. The content of the article was well-researched and -reported by journalistic standards. Ultimately it concluded in favor of epidurals, arguing that while women should always consult with their doctors, they need not fear receiving an epidural. For sources, the article relied most heavily on doctors and quotations from the studies themselves to represent the “epidurals are safe” argument, while three birthing books represented the “natural birth” position. Notably, the female author’s own (positive) experience with an epidural was included as a first-person account within the news article.

This article was introduced to The Bump’s message boards through a link posted by screen name LOL0 along with the comment, “I don’t think people on this board will find it very satisfying.” Following this initial post, several users responded, weighing the article’s merits and the legitimacy of its conclusions. Regardless of whether the women were for or against epidurals, comparisons to their own lived, bodily experiences were used as evidence to support their position. For example, one user commented that she had planned for a natural birth but did end up using an epidural due to medical complications during the delivery. From this experience, then, screen name lisagde concludes, “I don’t think this article understated the dangers of epidurals at all.” For lisagde, the credibility of the article depends not upon its objectivity, journalistic integrity, or quality of reporting – or even that it is labeled as “news” – but instead on the degree to which the information aligns or resonates with personal experience. Similarly, because the article did not reflect

screen name iris427's experience, she challenged the information and the conclusions drawn:

Oh I thought it was weird how she made it sound like you could walk and move just fine with an epidural. That may be true for some people, I don't know anyone who had an epi like that. It was certainly not the case for the epi that I had, which left me basically dead from the waist down. And when I worked in L&D [labor and delivery] I never had a mother who could walk or even move easily in bed. So it's hardly the standard.

Iris427's comments highlight the way the body is employed in The Bump users' vetting of expert knowledge: by describing physical sensations. She describes feeling "dead from the waist down" and the inability to "walk or even move easily." Later in her post she writes that the epidural "totally interfered with my ability to push." It is noteworthy that while Iris427 mentions her experiences as a healthcare worker, thus potentially positioning her as a formal expert, she includes this experience as almost an afterthought, as if her embodied experience is the primary consideration and her professional experience merely lends support for her conclusions. Indeed, her descriptions emphasize that personal experience of bodily sensations is a superior source of knowledge than expert knowledge claims: the materiality of the mothers' bodies becomes a source which is drawn from and rhetorically deployed within the forums to construct certain information as credible or not.

In fact, many users who previously had given birth expressed a view of physical sensation as the prime source of information during delivery. Their bodies "tell" them when to push, when to stop, and when the baby is finally born. They speak of feeling their babies in the birth canal and feeling the pain of the contractions. All of these sensations serve as sources of information about the delivery and can only be experienced by the birthing mother. Therefore the challenging of the news article is not simply about

trust and believability; the issue of epidural use is a site of epistemological struggle, where the phenomenological knowledge of the pregnant users is set against the empiricism of the doctors and scientists as represented in the Slate article. The women worry about the shot taking away this physical, sensuous information source, thus much of the discussion of epidurals revolves around what can and cannot be felt, what bodies can or cannot do while under its effects. For example, screen name kellog+1 draws from phenomenologically based criteria in assessing her epidural experience: “I had the best walking epidural that I’ve ever seen. I had all sensation (except pain). [...] I could feel him [her son] moving down the canal, etc.” Her comments represent commonly mentioned criteria throughout the thread: to what extent can my body still walk? To what extent can I feel my child? To what extent will I still feel pain? Screen name wheelsonthebus echoes these concerns: “I had an epidural that I could still move and feel with, but I am the only person I know that has experienced this. Every single other person I talk to is completely numb!” Both users appear to endorse epidurals because it did not eliminate their bodies as a source of information. Meanwhile, worry about detachment from their bodies and/or the birthing experience is cited by other women as reasons to forgo the epidural and endure the pain of birth.

We see, then, that both sides of the epidural debate draw from a phenomenological tradition of the body-as-knowledge-source in order to demonstrate the shot’s safety (or lack thereof). The empirical evidence is outweighed by personal experience because the women are using different credibility criteria than the scientists, doctors, or even the journalist; while the latter are concerned with frequencies and trends across a multitude of cases, the former are concerned about matters of degree at the

individual level. Recalling Foucault (1995), truth is seen as *in* bodily sensations because it is assumed that sensations cannot be faked. By being authentic or true to one's body, one has specific, special access to the particular truths residing in one's body. Hence why posthumanists argue the physical body warrants knowledge claims, and why embodiment – the discursive practice of performing the knowledge of the body – is available even (or perhaps especially) in this online context as a legitimization strategy for experiential expertise.

This reembodiment through testimonials of sensation should not be taken to mean that all pregnant women – or even all of The Bump users – are somehow perfectly in tune with their physical bodies. Quite the contrary – these users often expressed difficulty in “reading” their physical sensations. A frequently asked question in the forums and throughout The Bump pertains to interpreting the “signs” one's body is giving and whether a medical professional needs to “read” these signs. Indeed, judging when to seek professional medical attention, when to use alternative expertise (such as midwives and doulas), and when to listen to one's (figurative and metaphorical) gut is a frequently discussed concern across the entire website. Screen name xoxo1190 wonders whether to call her doctor because she feels physical sensations she does not know how to interpret:

Anyways I have a doctors appointment at 8 tomorrow morning and I am not sure if what I am experiencing warrants a call now or if I can wait til the morning. I am spotting a little and am having cramps and a lot of pressure but no regular contractions. I am not sure if I am being overly scared since so much has went wrong and I'd hate to make a trip in if I don't have to since I'm going tomorrow morning [...].

This user explains that she has given birth two times already, both times prematurely. She is familiar with the sensations of labor and contractions, but she is unable to identify the present sensations as equivalent to the previous ones. She also

notes sensations similar to those experienced by women who are menstruating (cramping and pressure) but also by those who miscarry. This question of how to read sensations echoes the Cartesian reversal Hayles discusses. Instead of beginning with the mind as the central premise, this knowledge system begins with the body as an entity whose “interaction with the environment [both spatial and temporal...] defines the parameters within which the cogitating mind can arrive at ‘certainties’” (Hayles, 1999, p. 203). In posthuman embodiment, the physical sensations direct the mind; thus we can understand why xoxo1190 begins with what she feels, eliminates past sensations as too dissimilar, and then begins thinking through how to interpret this new sensation. Perhaps having never experienced a miscarriage, the user associates the sensations with personal experiences she has had. Unable to fully conclude the sensations’ meaning, she seeks advice regarding their interpretation – first whether they mean she should call her doctor, who then will, second, explain what the sensations portend for her pregnancy.

Likewise, some users will rely on past, similar sensations to try to interpret new ones. Screen name marissakmasterson is trying to conceive a child, but she is unsure of whether that has occurred. She has taken a pregnancy test that came out negative, but she might have taken the test too early. She complains of a cramping sensation that is

like a dull ache within [her] entire uterus region [...] This cramping didn’t feel like any other cramping I had before, it was not localized like period cramps usually are. Not sharp at all. [...] Anyway, has anyone else experienced implantation cramps like this and turned out to be pregnant? What did your cramps feel like?

Even though this user has never been pregnant, she hopes descriptions of the sensations of conception and implantation will help her to read her own sensations. Indeed, many of the users who responded mentioned feeling an implantation cramp that felt similar to and yet still different from menstruation cramps.

In addition to sometimes having difficulty “reading” their bodies’ physical sensations, some users expressed frustration at feeling alienated from their bodies. In the comments section of a question-and-answer article on the signs of miscarriage, screen name *mdluvs10is* complains that her body did not present any of the physical signs of miscarriage.

Today would’ve been [the] 10th week of a very healthy pregnancy [...]. I went in yesterday to hear a heartbeat and the doctor said the embryo died at 6 weeks and 5 days. This type of missed miscarriage is exceedingly rare. [...] M/C [miscarriage] came completely out of the blue for me as I did not have a single symptom! My body still thinks it was pregnant 3 weeks after the embryo was already dead; crazy!

The last sentence is particularly telling; the agency ascribed to the body positions it as an entity separate to *mdluvs10is*, the person typing her experiences into a comment box online. It is also telling that this situation is called a “missed miscarriage” – as if the pregnant woman should have known the embryo had died but somehow “missed” or overlooked this fact – and that it is “exceedingly rare,” an attribute that positions physical sensations as typically present and intelligible to the pregnant women who must decode them, while absent sensations are positioned as aberrant or outside the norm. In a sense, women experiencing missed miscarriages are thus twice alienated: first from the happenings of their physical bodies and second from the embodiments they are supposed to express, since these women cannot rely upon their sensations as epistemologies and justifications of expertise like the “normal” users of *The Bump* can.

Individualism

A persistent discourse of physical sensation thus helps to enact reembodiment on *The Bump*. The female users construct themselves as providing expertise that derives

from what they can (or cannot) feel in their physical bodies. Their embodiment – and likewise their level of expertise – relies upon specific and detailed descriptions of their sensations. This does not mean one’s sensations can override the advice of medical doctors; often the users seek out the formal expertise of a doctor or nurse in helping them to read their sensations. Rather, the reliance upon personal sensation illustrates that in gathering knowledge about pregnancy, these users are including sensation as a data point that must be weighed along with other pieces of information. It is a vital data point that cannot be overlooked, but it is not the only one.

This is perhaps why there also exists on The Bump an emphasis on individualism. Rather than averaging these varied descriptions to construct a profile of “normal” sensations (as medical science frequently does), the users on The Bump treat sensation as an individual experience that can be similar to another’s experience and yet is still, ultimately, unique.

Indeed, a disconnect between formal experts’ concerns for collective averages and the pregnant users’ concern for individual bodies led the pregnant users to construct an experiential expertise that relies upon authentic embodiment for legitimation. While the formal experts are concerned with statistically significant patterns of severe damage and death, many of the users were concerned with individual experiences of pain and quality of life issues both during and after the delivery. One user, kesrya, comments:

It wasn’t about the risks of complications for me. It was about all the ‘normal’ side-effects that I see the majority of my patients whom have had an epidural experience, maybe for years afterwards. You know, the things that are common and expected and so therefore they don’t track them or consider them complications like the spinal headache listed above or chronic back pain at the site of insertion, etc. [...] we are so focused on the big ‘complications’ that we forget the every day little stuff.

Kesrya, speaking from within the medical profession (“my patients”) still relies on minor, long-term bodily suffering – instead of scientifically documented trends or statistics – to decide to forgo the epidural. While medical science is portrayed as concerned with only “big picture complications” the women arguing against epidurals use their individual bodily discomfort as the unit of analysis; therefore, they can contest or even reject scientific expertise regarding epidurals.

The women who argue in favor of epidurals in this thread also use this same measurement – instead of citing expert knowledge, they claim the procedure as safe because they have experienced it in their own bodies with acceptable after-effects such as headaches or back pain – acceptable not because the odds of feeling them are small or because there are more severe complications to consider (as the scientists and doctors argue) but because the risk of these sensations was weighed by the women against the sensation of the pain of delivery. We see, then, that the users on The Bump eschew passive acceptance of expert advice in favor of using individual bodily damage and discomfort as the measure for decision-making – even if users come to different conclusions while using this same criterion. In this way, the discourse surrounding epidural use directly challenges and even at times rejects expert knowledge in favor of individual experience.

Indeed, there is a trend in The Bump’s message boards to articulate medical knowledge as relevant for general cases and users’ personal experience as relevant for their own specific case; therefore, their doctors have to alternate back and forth between offering general advice and patient-tailored advice. However, users also expressed frustration that their doctors and healthcare professionals frequently adhered to the

general to the detriment of the specific. This articulation not only forms the foundation of their discursive interactions with scientific and medical knowledge (as products of the general), but also provides a common way for settling debates in the forums: an appeal to the supremacy of the particular. In the epidural discussion – as in other discussion on other boards – posts often end with or contain a statement affirming that every woman’s body is unique, and thus the “right” choice will be different for every woman. For example, screen name sschwege ends her antiepidural post with the sentiment that “it’s wonderful that pain management continues to improve and women have more of a choice in the matter. Every woman should be able to have the most beautiful birth possible, whatever that means to them.” These comments recognize there is no “right” decision that all women should choose but instead insist on a consumerist model in which there exists a multitude of right decisions. Every user is entitled to express what she or he believes about epidural use (or breastfeeding, or using cloth diapers, or scheduling a Cesarean section, etc.) while no user is compelled to accept another’s “truths.” Discursively, her post combines women from both sides of the debate into the same group – a collective of particular embodiments – with experts and their generalizing tendencies on the outside.

This same appeal to individualism appears in other threads, too. In a discussion about deciding whether to buy baby food or make it at home, screen name zora51 writes, “I’m going to be making it. But more for health reasons than cost. No right or wrong though! Just mom’s preference.” Again, there is an emphasis on each individual needing to make the decision that is right for her/him. This emphasis on individualized decision-making also obscures the fact that not everyone is in a position to make the decision.

Zora51 mentions a great “local market with cheeeeeaaap veggies n fruit” that she will use to buy food for her baby. Screen name atoz625 acknowledges that making baby food might not be cheaper than buying it, and that there are many ancillary products to purchase (she mentions Beaba Babycook Baby Food Maker and recipe books specifically), but “I felt better about it.” The fact that not everyone has easy access to fresh produce, let alone money for Beaba Babycook Baby Food Makers, is ignored. Likewise, these users portray the food preparation as easy. Atoz625 offers, “In terms of recipes, basically the first foods are all just single foods puréed (I steamed first).” Screen name CelticWife agrees: “Making your own baby food is very simple. It is only one ingredient at a time in the beginning.” But this simplicity and ease assumes one or more parents have the necessary time to devote to such preparations. In this thread, only CelticWife, as an afterthought, acknowledges these difficulties:

Forgot to say, it is cheap if you and SO [significant other] eat a lot of fresh foods. DH [dear husband] and I do. If you and SO eat out a lot, or eat a lot of ready made meals, then it is a bit more expensive and a bit more work.

Although decisions are discussed as individualized matters, such discourses obscure the fact that certain physical constraints (such as disposable income and free time) limit which options are truly available. This is a primary tension in neoliberal ideology – in advancing individualism as the solution to every problem, it creates a singular kind of individuality that everyone must uniformly wear.

Gender, Authenticity, and Expertise

In addition to sensation and individualism, constructions of gender also aid in reembodying the users of The Bump and positioning them to claim expertise through their authentic discourse. Indeed, although The Bump’s online context occludes a

physical display of biological sex (and thus the heteronormative assumptions about gender that might follow), Josie Arnold argues that sex and other physical markers of identity are never fully erased online: “Cyberspace is being colonised now and the colonisers are taking their own backgrounds with them. [...] We speak in electronic spaces with the eerily distorted voice of the patriarchy. We enact in cyberspace the same inequalities which are evident in earth space” (as cited in Sundén, 2001, p. 225). While this reembodiment online enables users of The Bump to draw from physical sensations and individual experiences as epistemological sources and criteria for vetting expertise, it also constrains them by reinscribing traditional gender notions that assume an inherent, “natural” connection between sex and gender.

Indeed, The Bump is a gendered, sexed, classed, and aged forum: Throughout the site, heteronormativity is the presumed status quo. This does not mean The Bump excludes gay couples or single parents, but these groups are seen as variations from the norm and are relegated to specialty boards in the community forum. Likewise, there is an expectation that those who are pregnant are older than 18 and that conception occurred purposefully. This expectation excludes teens, especially those who became pregnant accidentally. Indeed, there is not even a teen pregnancy board, leaving youths to search for advice among articles and webpages that are geared toward an adult, affluent, two-partner pregnancy. I bring up these markers of identity not to open discussion of each individually but to illustrate Arnold’s point that online spaces might hide individual physical bodies, but issues of embodiment (especially pertaining to identity politics) are never truly left behind (as cited in Sundén, 2001, p. 225). While this chapter cannot explore race, class, age, gender, and sexuality in the kind of depth these issues deserve, a

more thorough discussion of one of these areas is merited to see in what ways embodiment is reasserted online. Because it permeates every aspect of The Bump – from the tools to the articles to the videos to the discussion boards to the experts themselves – gender is an important characteristic to explore in more detail. This section will look at constructions of gender on The Bump, particularly as they are deployed in communicating personal experiences as authentic and thus sources of expertise.

Although sex and gender feature prominently throughout The Bump as topics of discussion, particularly when discussing the sex of one's fetus, the creation of a message board specifically for fathers provides a rich site for analyzing online constructions of gender as they relate to expertise. The Dads and Dads-to-be Board was created in May 2012 in response to a growing number of male users on The Bump. The very fact that there is a separate Dads Board demonstrates an othering process, whereby the primary areas of the website are demarcated as female areas, which necessitates a separate space for those who have been excluded. Not much of the official content of The Bump was inclusive of fathers or fathering. The tools, for example, assume a female user: The fertility tools exclusively pertain to ovulation, the pregnancy tools include a contraction counter and a womb development monitor, and the parenting tools emphasize tracking the schedule of breastfeeding. There are many articles describing what women should and should not do during conception, gestation, and delivery (such as an article describing which foods and beverages are conducive or adverse toward conception), but there are few such resources for male users. Should a man trying to conceive a child eat certain foods or abstain from others? Are there things a partner of a pregnant woman

should be doing during the gestation period? Are there ways for the partner to bond with the fetus? For much of The Bump's existence, these issues were not addressed.

Despite this othering and eclipsing of fatherhood, several male users still tried to utilize the website, primarily through participating in forum discussions by logging in under their female partners' accounts. Screen names ame3576 and ladyjenna13, for example, both posted messages explaining that their accounts were shared between a husband and wife couple.

As previously discussed, although one's biological sex is invisible online, one's gender performance is not so easily shed. In fact, the online context might even encourage exaggerated performances to delineate gender boundaries. This is the case with the Dads and Dads-to-be Board, in which boundaries, both digital and gendered, are contested and policed. Despite the lack of physical presence, there are many opportunities online to perform one's gender. Screen names and avatars, for example, are a chance for self-identification online through specific forms of disclosure or concealment. On The Bump, avatars default to a generic graphic of a pregnant woman rendered in the site's color palette, but users are permitted to change the avatar to any image they like. On seeing the default avatar, screen name BTBCWM commented in an introductory post to the Dads Board, "Good lord, real manly avatar there..." Many of the Dads Board users changed their avatars to pictures of men engaged in quotidian activities (presumably a picture of the user himself) or of a child (presumably the user's child). After additional complaints about the default avatars, the website's editors created a set of father-themed ones. Whether a user receives the father avatar or the pregnant woman avatar depends on the user's answer about his/her biological sex on the registration form. Many of the

screen names in the throughout The Bump also reflect this notion of online self-presentation via their frequent incorporation of sex and gender indicators, such as usages of gendered first names or courtesy titles (jack19, DavidStamps, MrRee, mrs.ike, JenniD2), gendered domestic roles (Coltsdad, LuckyDad, TexasMom7137, AGsWife) or biological sex (Kentuckyboy76, FLGirl1985). The usage of “dad” in the screen name occurs more frequently than “mom” does (some variations: StayHomeDad, Dad hopeful, Dad of 5, DaddyDylan, metaldad, Coltsdad, and LuckyDad), perhaps indicating that the male users employ their identities as fathers as a way of legitimizing their presence on The Bump. Indeed, when screen name funk00 found out his partner had miscarried, he posted a message to the Dads Board entitled, “prayed I wouldn’t be saying goodbye.” It is unclear from the title to whom the poster is saying goodbye, but the post’s message provides the clarification: “we lost our twins a day ago at 14 weeks. just when we were about to find out what we were having. i thought we made it thru the storm. i was so excited to be having twins. this hurts so much more than the july lost. i’m 31 still not a dad. So long Bump.” With the loss of the pregnancy, funk00 no longer sees himself belonging on The Bump because he has lost the identity of “father.” This contrasts with many of the female users, who have continued to be active on The Bump even after a miscarriage, to which the robust Trying to Conceive After a Loss, Pregnancy After a Loss, Parenting After a Loss, and Miscarriage or Pregnancy Loss message boards can attest. Although many of the regular posters in these boards have indicated that both male and female users would be welcome in these areas, the fact that funk00 sees those areas of the website as “not for him” indicates the extent to which boundaries are policed for the male users.

Additionally, the adoption of gender-identifying screen names sharply contrasts with the general message board convention of obscuring, ignoring, or playing with gender identities, such as not referencing gender at all in the screen name or adopting a screen name and persona not connected to one's biological sex (such as a man posing as a woman online). All of these cues rely upon a heteronormative notion of gender in order to "reveal" whether a user is male or female, and perhaps the context of reproduction enables such restrictive assumptions about a user's biology.

Being authentic to one's biological sex in a heteronormative sense, then, becomes the key to presenting one's experiential expertise as legitimate. Many of the women of The Bump see embodied experience as such a strong source of information and expertise that they will seek out representatives of certain experiences and certain bodies to inquire about an issue from a specific perspective. For example, screen name marissakmasterson posted a question about conception in the 1st Trimester Board (even though such questions should be posted to the Trying to Get Pregnant Board) because she "wanted to hear from pregnant mamas." Applying this same logic, many women posted questions to the Dads Board because they wanted a male perspective on an issue. Such questions have ranged from requesting ideas for Father's Day gifts to asking for sex and relationship advice. These questions sparked some resistance from the dads, who resented female users entering a male space. The question of who is and is not permitted to post what on the Dads Board became a site of boundary maintenance as notions of place and gender began to be negotiated. Screen name StayHomeDad posted just a month after the creation of the Dads Board a message titled, "PSA: Daddy Board." In the message, he complained about the preponderance of posts coming from users identifying as women.

This board just started and the guys haven't really had an opportunity to gain traction and figure out what is going on. Having all the other posts come in from women already established on the site is like getting an awesome new gift you really wanted and everyone else getting to use it before you even touch it. [...] I didn't come here to be the focal point of questions from every woman on every other board on this site, I specifically came to be a part of a community of men that are excited about being a father or going to be a father.

StayHomeDad articulates a boundary within The Bump (the Dads Board) as well as a gender boundary – there is an implicit association made between “a community of men” and “being a father,” but as screen name beccaga16 comments, these associations need not be automatically made: “If I fill both the mommy and daddy role in my child’s life, can I post here? I can cross dress to make you more comfortable...” Beccaga16 includes a picture of Julie Andrews from the movie *Victor Victoria* in her Count Victor Grazinski costume.

Other users likewise contested StayHomeDad’s articulation of a boundary isolating the Dads Board from the rest of The Bump: screen name ChrissyJ2480 wrote, “Seriously, Bro, this is a public message board...people are gonna post where they are gonna post, regardless of what the board is called.” Screen name bugandbibs echoed this sentiment: “News boards get started all the time. No one gets to decide who ‘really’ belongs. You should try branching out to the other boards. They aren’t just for women.” Several self-identifying male and female users responded in support of StayHomeDad as well. Screen name luvmyducks wrote, “I’ve seen quite a few men post on our ‘women’ boards and have always been welcomed with open arms. I get what you are saying though--threads started by women just to try to get in guys’ heads can get annoying.” Screen name love4chevys agreed: “Women need to STAY AWAY and leave these men

alone!! This is not your board. I hope you men get some peace from the crazies.” Screen name ladyjenna13 also drew distinctions similar to StayHomeDad’s.

I know I am happy that we have a place for us men now, where we can act like the men we are. I have no problem with women coming on here and offering their inputs. I do have a problem with women coming on here and trying to act like my wife, or mother, and try to show us what we are doing wrong.

Agreement with StayHomeDad’s construction of boundaries can thus also help with self-presentation of one’s identity, as ladyjenna13’s use of first-person collective pronouns indicates the user identifies with men.

Screen name iWesleyd08 posted a complaint similar to StayHomeDad’s a few days later regarding the inundation of questions about Father’s Day gifts. Interestingly, this post received more responses than StayHomeDad’s “PSA,” responses which disciplined the men to conform to a hypermasculine ideal. Some users ridiculed the dads as complaining like women do and thus becoming woman-like. For example, screen name HappyAardvark responded, “I wouldn’t have thought it was possible, but this board might have the biggest collection of b!tches [sic] on the bump. Kudos, ladies. I mean, gents. I wonder if you all post here frequently enough, your man-periods will sync up too. I hear that can happen.” Screen name kittycarr asked in a different thread if some users were stay at home fathers because their wives had better careers and whether these users wore “manpris while vacuuming,” manpris being a portmanteau of “man” and “capri pants.” Such disciplining also occurred when screen name mrrsgaines100 likewise questioned the dads’ masculinity, as she described herself as wandering “off to kiss [her] husband who has manly and valid complaints if and when he does complain.” Curiously, this disciplining of gender boundaries seems to be mostly directed at the men. The female users rarely seem to resort to hyperfeminine stereotypes. It is as if The Bump is an

assumed feminine sphere, and therefore those who inhabit it are by default assumed to be female.³ On The Bump the men have to prove they are not the default with hypermasculine stereotypes. Meanwhile, the users identifying as female frequently post message on such traditionally “masculine” topics as sports, their profound love of beer and alcohol (or if they’re pregnant, reminisce about such beverages), and all kinds of descriptions of bodily functions. Gender disciplining of the female users is an infrequent – if at all present – occurrence. It is as if the women, by virtue of their pregnancy (or desire to become pregnant) are allowed (or are compelled) to be individuals, while the men are homogenized, othered, and induced to prove their sex through hypermasculine displays, lest they suffer further disciplining.

In responding to mrsgaines100, iWesleyd08 repositioned himself as masculine by troping hypermasculine stereotypes, writing that he had a “MANLY COMPLAINT! My wife was too busy breastfeeding that she couldn’t take time to give me blow job. I tried to make her multi task but she said no. dang females.” By referencing a stereotypical division of domestic roles that views women as caretakers and men as obsessed with sex, iWesleyd08 contests mrsgaines100’s usage of “manly” as likewise stereotypical.

This negotiation of gender does more than define boundaries and police posting behavior. It is deployed in the construction of expertise as well. As mentioned, many of the pregnant users of The Bump see other users’ embodied experiences as sources of knowledge. Thus some users argue for blurring the boundaries of the boards in order to share knowledge and experience. Screen name IrishCoffee7 sees the Dads Board as a male space but also encourages the dads to visit other boards and pages on The Bump:

³ This would contrast with the rest of the Internet, where users typically are assumed to be male by default. In fact, some users who identify themselves as female are sometimes ordered to “prove” their biological sex by posting pictures of their breasts: the injunction “Tits or get out” is unfortunately common.

Y'all only have one board so I think most of us ladies don't want to take over 'your' space. But since this applies to 'ours' I would say come on over. You may not be an expert on actual breast feeding, but you're probably an expert on how it feels to see your formerly sexy wife [breastfeeding]. So yeah, a little male perspective would be welcome.

Screen name KateLouise likewise urges the denizens of the Dads Board to “please post on the other boards if it interests you. I love hearing the male perspective, even if it’s something you’ve directly experienced [...] or not.” By virtue of being “authentically male,” the users who are or will be fathers can provide expertise on maleness. This idea of male embodiment as a source of male expertise paradoxically contradicts the female users’ insistence on seeing experiences as sources of individual knowledge: while every woman’s pregnancy is a unique situation, a single man might be able to provide a “male perspective” that speaks for all men.

Conclusion

In this chapter, I have discussed the ways that embodiment is possible online through specific discursive practices that permit a rhetoric of the body to legitimize individual, gendered, sensuous expertise. The creation and legitimization of this expertise creates an inherent paradox, however. On one hand, this kind of functional expertise can be liberating, not unlike that possessed by Wynne’s (1992) sheep farmers, Epstein’s (1995) AIDS activists, Gusterson’s (2000) radioactive waste incinerator protestors, or even Postigo’s (2003) AOL troubleshooters: the pregnant users of The Bump have found a source of lay knowledge that they alone possess, that stems from presenting their bodies as authentic, and that they can contribute to enhance the formal experts’ knowledge of an individual pregnancy. Even a female obstetrician will not know exactly what her individual patients are feeling and experiencing, and the pregnant users of The Bump

have treated this knowledge gap as one that they are uniquely positioned to fill. In fact, as we shall see in Chapter 4, much of the technical design of *The Bump* serves to encourage just this kind of argument.

On the other hand, this experiential expertise is itself limited, as we saw with the users who felt alienated from their bodies or who missed or misread their physical sensations. Additionally, this kind of expertise is not, in fact, available to everyone – it constricts who might be an expert to certain gender performances and certain kinds of individuals.

Indeed, we might attribute this inherent contradiction to the tensions present in neoliberal ideology, which legitimizes lay expertise only if it is individualized. By establishing certain requirements (the individual experience of one's own body) for attaining and demonstrating knowledge, neoliberal sensibilities enable particular performances of expertise while simultaneously limiting or even delegitimizing others. In this way, neoliberal imperatives have undergirded a push to define and use expertise in health decisions by asserting the importance of individual knowledge and foresight as the key to proper decision-making. As Wolf (2007, 2011) argues, the decision to seek out more knowledge regarding one's pregnancy or parenting is no longer an optional one – it is mandatory. Every parent is expected to teach herself or himself about every aspect of childrearing and pregnancy. This self-education frequently manifests itself as a mandate to consume the correct sources of knowledge, thus decision-making in pregnancy becomes less about liberating oneself from the oppression of the medicalization of pregnancy and birth (Spretnak, 1990) but instead about accepting such knowledge regimes as the default that must be continually weighed, evaluated, and augmented with

additional knowledge sources and compared against conflicting regimes of truth. This casting of knowledge as contingent and personal permits a shifting of responsibility from traditional authority figures onto individuals. Because they have been enabled as knowledge-producers and lay experts, the users of The Bump must also correctly apply this knowledge in the assessment of risk.

CHAPTER 3

RESPONSIBILITY IN THE FACE OF RISK:

AUTHORITY AND EXPERTISE

We saw in the previous chapter how the valorization of individual knowledge can be a double-edged sword that can empower users to see their own bodies as sources of knowledge and yet can also lead to a commodification of knowledge deployed in the neoliberal reconfiguration of self-education as prerequisite for informed decision-making. In other words, by championing individual knowledge, neoliberal sensibilities encourage gluttonous information consumption in an attempt to stay on top of every new development. In this way, the pregnant users are not offered embodied expertise as a tool they might find useful; it becomes a mandated self-monitoring system, one that can easily frustrate women when they do not know how to read their bodies' signals or receive no signals at all.

In this chapter, I will explore how this mandate for authentically embodying one's pregnancy is deployed in the assessment of risk and the assignment of responsibility. Indeed, the injunction to understand one's body and utilize it as a source of knowledge is here deployed in defining risk as something to which every individual patient must attend. Thus, traditional sources of authority (even, too, *The Bump* itself) are subverted in favor of individual responsibility. I argue in this chapter, then, that defining risk as an

ever-present threat that individuals must bear the responsibility of monitoring and mitigating is a second rhetorical strategy by which neoliberal imperatives are operationalized on The Bump.

Scholarly Discussions of Risk, Responsibility and Authority

There are entire journals devoted solely to the study of risk, and the concept arises in a vast array of literature. The study of risk is itself a broad and diverse line of research. Reviewing the entirety of the scholarship on risk is beyond the scope of this thesis, but a brief thumbnail sketch of the research relevant to this project will illuminate the ways risk is conceptualized in this chapter. Ulrich Beck stands out as a preeminent risk scholar. His book, *Risk Society*, helped to turn scholarship toward understanding theoretical constructs and applications of risk.¹ Beck sees the risk society as “an inescapable structural condition of advanced industrialization where the produced hazards of that system” work to undermine any sort of safety protocols already in place (Adam, Beck, & Loon, 2000, p. 7). Risky behaviors are choices made by autonomous individuals who act in their best interest and are assumed to have all of the necessary information at their disposal (Murphy, 2000). Thus, concerns about risk can be seen to modify or circumscribe lay publics’ seeking and use of information, especially when they are encouraged to be their own experts.

However, Beck’s work is not without its shortcomings. For example, Beck’s risk society ignores issues of race, class, gender, and sexuality and how those identity markers

¹I should acknowledge here that risk has long been studied in science and engineering disciplines in quantified ways, particularly in such fields as ergonomics and occupational safety. Beck’s work has helped to conceptualize risk qualitatively and opened it to study from more social scientific, philosophic, and rhetorical perspectives.

might still be in play limiting or broadening one's range of choices. "That is, an individual's ability to make choices within a risk frame, to be an agent in a risk culture, and to adopt putatively risk-averse behavior is contingent on his or her social and economic resources" (Wolf, 2011, p. 52). The degree to which a person can participate actively in a risk culture is mitigated by these factors but glossed over by Beck.

Some scholars also find Beck's work to be too generalized, such that it ignores vernacular discourses of risk as well as broader societal contexts. For instance, Wynne (2002) argues that official institutions taking up Beck's theories has contributed to "the growth of a new defining public consciousness of risk, but with growing public alienation" (p. 466). Similarly, Irwin, Simmons, and Walker find Beck's work to be too narrowly addressed, thus missing important elements in the study of risk. "Beck's sweeping account of the 'risk society' neglects the close relationship we have identified between risk issues and a broader, and more widely articulated, set of everyday concerns" (Irwin, Simmons, & Walker, 1999, p. 1325). The authors rightly point out that although risk might be present as a broader, societal concern, nevertheless its consequences are often operationalized at the level of the individual, enacted through everyday concerns and discourses.

Therefore, many scholars have recently worked to move beyond Beck's conception of risk. For example, to address the missing factors in Beck's work Irwin et al. have been among those STS scholars advocating a kind of vernacular approach to the study of risk, in which "risk does not stand apart from the range of social relationships, worldviews, everyday practices, and shared understandings which constitute local culture" (Irwin et al., 1999, p. 1325). Such factors as collective memory, common sense,

local narratives, moral discourses, and performance provide “cultural resources for lay reasoning about risk” (Irwin et al., 1999, p. 1314).

Wetmore (2004) argues that scholars must not forget the role of power in risk discourses. Therefore, he urges scholars to examine who is defining risk and in what ways. Indeed, he argues those who can control the definition of risk can shape the nature of the problem of automobile safety, thus enabling and constraining particular solutions and subsequently the “distribution of responsibilities the solution entailed” (Wetmore, 2004, p. 377). Perhaps as an acknowledgment of this role of power, Wynne (2002) argues discourses of risk frequently are spaces of contestation.

Risk has become the form of public discourse through which public meaning is given to technology and innovation, as defined in institutional discourses such as government, media, legal and commercial, all deriving from the scientific. Yet claims of risk are endemically and increasingly contested. (Wynne, 2002, p. 450)

Likewise, Irwin et al. argue that scholars must approach their studies with “an open-mindedness about which risks appear relevant in specific settings and, indeed, whether risks are an issue at all” (1999, p. 1312). In this vein, this chapter will strive to uncover everyday, lived conceptions of risk as they are portrayed on *The Bump* by experts and laypersons alike and how these conceptions further complicate the operationalization of expertise.

The Relationship Between Risk and Responsibility

There is a connection (sometimes assumed, sometimes made explicit) throughout this literature between risk and responsibility. Wetmore (2004) argues that the actual process of defining what constitutes a risk can discursively shift the responsibility for mitigating that risk onto specific groups and away from others. As Murphy (2000)

rightfully notes, “[r]isk-taking behaviors raise questions of accountability and responsibility” (p. 294). Indeed, to engage in risky behavior often is interpreted as “a failure to live up to the neoliberal ideal of the rational, responsible individual” (Murphy, 2000, p. 296). This interpretation is heightened when it comes to medical decisions generally and pregnancy decisions specifically. Responsibility might manifest not as a doctor’s duty but as a patient’s responsibility to herself and her fetus. Medical risk management “withdraws to a position in which its responsibility is purely technical: it only exposes the health risks involved in a pregnancy [...]. The ethical responsibility lies with ‘the mother’” (Helen, 2005, p. 50). Thus the behavior of good neoliberal citizens is directed toward increased responsibility in the face of increased risks. The mandate to know one’s body and consume the correct information is deployed in this responsibility-risk negotiation.

Authority has long been associated with both expertise and responsibility: The authority who gives expert advice claims responsibility for that advice and its effects when followed. Traditionally, authoritative knowledge regimes require a kind of hegemony in which authority is “continually reinforced and reproduced through hierarchical social interactions, such as clinical encounters” (Georges, 1996, p. 158). The maintenance of authority has been especially salient with regard to medical knowledge and the traditional doctor-patient relationship (Browner & Press, 1996; Georges, 1996; see also Haraway (1997) and Freedman (2003) for a discussion of medical authority’s gendered dimensions).

The role of authority has been changing over the last few decades, however. Brown and Michael (2002) see scientific authority becoming slowly eroded and even

replaced by a rhetoric of authenticity. As responsibility has increasingly been shifted onto individuals for assessing and mitigating risk, so, too, have the means of assessment shifted: not every individual can claim authoritative expertise, but everyone can enact performances of authenticity, which (as we saw in Chapter 2) can be deployed in the legitimizing of experiential expertise.

This is not to say that authority has become decoupled from expertise entirely. Sims and Henke (2012) recently found that just such an association was vital to presenting knowledge about nuclear weapons as credible. Their research shows there is also a link between expertise, credibility and authority. Indeed, Wynne (2008) has argued that there are two conceptions of science, one that refers to the scientific production of knowledge and another that treats science “as aspirant public authority knowledge” (p. 24). Wynne asserts it is this latter kind of science, science as public authority, that he has studied throughout his career. Finally, authenticity and authority need not be treated as oppositions in a binary. Arguably, the elders of the tribes studied by McIntosh (2009) used their claims to authenticity as a means for deriving authority.

It is tempting to draw the simplistic association between lay publics and authenticity, on the one hand, and formal experts and authority, on the other hand. While this configuration certainly plays out frequently (on *The Bump* and elsewhere), lay publics can also envision themselves as having a degree of authority. If we combine STS scholars’ injunction to study everyday conceptions of risk with notions of authority, we are faced with the question, whose authority? Particularly on *The Bump*, who is said to be an authority, how are authority and risk articulated, and how do these articulations shape notions of expertise in the face of (real or imagined) risks? In this chapter I argue

that in vesting the pregnant users with an experiential, embodied expertise, The Bump opens space for its own disavowal of responsibility for the risks of advice-giving, resulting in an abdication of authority that ultimately undercuts its own efforts to be a go-to resource for pregnancy information.

Articulating Risk on The Bump: The Medicalization of Pregnancy

Brown and Michael (2002) argue that “to articulate one’s understanding of risk is to engage with the means by which such risks are identified” (p. 260). Discourses of risk necessarily involve constitutions of risk itself and articulations of who should prevent, contain, or mitigate the identified risk(s). This process of identifying risks as well as responsible parties plays out in several ways throughout The Bump. Most notable is the way the users’ discourse reflects an association of pregnancy with medical definitions of risk.

Risk is discussed on The Bump in ways similar to the medical field’s definition of risk: as the presence of abnormalities. Events that result in a termination of pregnancy are frequently treated as making the next pregnancy a “high risk” one: A pregnancy after two or more miscarriages, successful in vitro fertilization implantation, prenatal test results that are difficult to interpret, or being diagnosed with gestational diabetes will frequently trigger a “high risk” diagnosis. Other unusual pregnancy circumstances (such as carrying multiple fetuses) are likewise diagnosed as “high risk” leading to a further discursive association of abnormality and risk.

On The Bump, this association of risk and abnormality seems to play out in the organization of the message boards, as separate boards have been created for specific categories of risk (as defined by the medical community): High-Risk Pregnancy,

Infertility, Loss, Miscarriage/Pregnancy Loss, Multiples, Pregnant after a Loss, Pregnant after Infertility, Pregnant after 35, Secondary Infertility, Success after Infertility, Infertility Veterans, Trouble Trying to Conceive, Trying to Conceive after 35, Trying to Conceive after a Loss, and Vaginal Birth after C-section are all individual boards even though overlap in many of the topics is prominent. The topic of adoption (which can be as complicated as in vitro fertilization) has one board devoted to it, while conception has 10 separate boards: nine boards dealing with medical risk and abnormality (listed above) and one board for couples whose conception is proceeding “normally.” That the abnormal board on The Bump is the one pertaining to a “normal” pregnancy highlights the medicalization in play here.

Medicalization and Biopolitics

This message board organization has the additional effect of positioning sexual reproduction as normal and important, while struggles with conception are abnormal and adoption is a “last resort” barely meriting attention. In *The History of Sexuality, Volume I*, Foucault (1980) argues that sex has become limited to the purposes of reproduction. This mandate that sex shall be used to procreate actually benefits capitalism above all else, because an ever-growing market demands an ever-growing population (Foucault, 1980). Foucault calls these politics of life and birth “biopolitics.” On The Bump, two biopolitical risks in particular are articulated: one pertaining to conception and one pertaining to gestation and birth. In the first, the risk the users negotiate is the possibility that the couple might never successfully conceive a child. In the second, the risk is that pregnancy itself might become abnormal, or “high-risk,” and the unborn child might not survive (occasionally there is concern about the mother’s life, but it is usually the health

of the fetus that is paramount). Both of these risks point to the true, underlying risk that some couples might never sexually reproduce. The possible risk to the woman's health and body in undergoing fertility treatments (medication and its side effects, self-injections, frequent anesthesia, and weight gain, to say the least) and multiple miscarriages is diminished.

Indeed, this is a classic neoliberal turn, but instead of market *solutions* becoming social and political solutions, it is the *problems* of the market – the need to perpetually increase – that are thrust upon society. In this ideology, a lack of sexual reproduction is discussed as a “failure,” a construction that is odd given the present global overpopulation problem (Pimentel, 2012). This discourse capitalizes on a couple's sadness to mark them as biopolitical failures who do not provide their country (and its economy) with the consumers and workforce it needs (Cover, 2011). The many message boards on The Bump devoted to conception, infertility, and miscarriage attest to the way the website and the users alike treat the risk of never procreating as not only real and grave, but also necessitating action – both intervention and prevention – on the part of the parents themselves. (As we shall see, the lengths to which couples will go to biologically procreate are great indeed.) The creation and organization of the message boards themselves, then, illustrates the extent to which biopolitical conceptions of risk have been funneled through neoliberal mandates for individual risk assessment and action.

The Risk of Becoming High-Risk

Implicit in this medical definition is that pregnancy “normally” proceeds without risk, an assumption that not all of the users share. Indeed, the users seem to exhibit many of the characteristics of Wolf's (2011) risk culture: “a risk consciousness-generalized

anxiety about the future, concern about rationalizing and optimizing, [and] fear of worst-case scenarios” (p. 52). Most interestingly, this concern and fear “is increasingly at work even when danger or harm seems remote” (Wolf, 2011, p. 52). The volume of questions in the message boards and the question-and-answer articles asking whether something is safe or if a symptom is normal, attests to the presence of this risk-culture of fear and anxiety. Since each body is unique and since only the women inhabit their bodies, they must be constantly vigilant in monitoring their bodies for abnormalities.

To the users, a pregnancy is always at risk of becoming high-risk. Screen name xoxo1190 writes that she has been diagnosed with blood clots in her lungs and leg.

Although she is on blood thinners, she has noticed a sudden pain in her leg, prompting her to visit her doctor:

last night I started getting bad pain behind my knee and in my groin so I called my dr and they had me come in and said ‘it’s probably from the clot it could have moved but as long as your on a [therapeutic] level of blood thinners itll be okay but if you aren’t it is very dangerous go home come back tomorrow and get your levels checked and well call on Monday if your levels aren’t good’ I am FREAKING out because I feel like they are fluffing me off [...] My MIL [mother-in-law] suggests going to the ER and saying I’m not comfortable with what the drs said.

Xoxo1190’s post is anxious, almost frantic: it contains no commas and no periods (until the final one at the very end), frequent use of coordinating conjunctions (particularly “and” and “but”), and the notable capitalization and absence of contractions in the phrase “I am FREAKING out.” At the level of her very grammar, this user communicates her concern. However, she also expresses her doctor’s nonchalance: “itll be ok,” “go home,” “well call you.” To the doctors, normal pregnancies are without serious risk. Therefore users often express a fear of being dismissed as “irrational.” Xoxo1190 recognizes this schism when she writes, “I don’t want to overreact and look like an idiot.” Still,

xoxo1190 sees the presence of blood clots as a threat to the safety of herself and her fetus. She expresses her frustration that the doctor did not share her risk assessment. To xoxo1190, the pregnancy is always at risk of becoming high-risk. Thus even harm that has been categorized as remote by her doctor still warrants fear, anxiety, and action.

Screen name Angellove32086 writes that xoxo1190 is justified in maintaining this level of concern in the face of contradictory risk assessment from her doctor. “I dont have experience with clots but I do have High risk experience and I know for a fact that sometimes you have to fight to be listened to. I have even shown up at an entire other hospital to make sure I was getting the care I needed.” Angellove32086 then reveals that while her actions might be interpreted by others as obstinate, “guess what if I hadnt baby might not have made it.” Here we see a disconnect between how doctors and patients might perceive risk. Having internalized Wolf’s (2011) risk culture, in which the unknown future portends all manner of worst-case scenarios, Angellove32086 worries about being dismissed by doctors, but saving the life of her child justifies her fight for the acknowledgment of her risk assessment. Likewise, screen name kimmy42 advises xoxo1190 to insist the doctors attend to her concerns and thus consider her definition of risk: “You have to keep bulling them sometimes to get them to hear you.”

Users seem to have adopted doctors’ definition of risk as a medical abnormality, but to what extent their individual circumstances are “abnormal” is still contested. While doctors might not see a particular scenario as threatening to the patient or fetus, the users tend to treat every scenario as potentially developing into a threatening one. In this way, users’ assessments of risk incorporate doctors’ definitions but then frequently go beyond them.

Language and Medical Socialization

This discourse of risk in terms of medical diagnoses reflects a process Browner and Press (1996) call medical socialization. They note that

much of prenatal care can be seen as a process of medical socialization, in which providers attempt to teach pregnant women their own interpretations of the signs and symptoms the women will experience as the pregnancy proceeds and the significance that should be attached to them. (Browner & Press, 1996, p. 114)

In defining risk as pertaining to only the medical aspects of pregnancy – as opposed to the potential financial, social, relational, and career risks pregnancy might additionally pose – The Bump encourages a medical socialization of the pregnant users. Everything is directed toward the primary biopolitical risk: that the couple might never sexually reproduce. Although there is often disagreement as to whether something constitutes a legitimate medical risk, the medical discourse remains the primary measurement of risk assessment. The boundaries are clear: a grave occurrence might or might not pose a threat, but if any risk exists it will be medical in nature.

This medical socialization is present on The Bump in the frequent use of medical language and quantifications and the attendant prevalence of medical acronyms and shorthand for various kinds of diagnoses and procedures. This more specialized language is particularly salient among those with high-risk pregnancies, or who have miscarried frequently, or who are using in vitro fertilization or other conception technologies – in short, whenever the processes of conception, gestation, and/or delivery are brought under the vigilance and control of the medical establishment. These acronyms are used not only in users' posts, but also occur in the signature block's footer as a block of text. These footers are written by users, usually those who have had extensive medical intervention in their attempts to become pregnant. Additionally, footers are acts of self-disclosure that

position the user's body as an object of medical study (and perhaps the user as the subject performing that study). Screen name megs3084, for example, uses her footer to document her ongoing struggle to bear children:

Me:28 DH:28 TTC since 1/11 Dx: unexplained IF/early DOR
 Feb' 12- Clomid/TI with CD3 & 21 labs(normal)& SA-count 6mil/ml,morph/motil
 OK-BFN
 April' 12 Ultrasounds,HSG -clear, slight accurate uterus
 5/14 IUI #1-50 mg clomid-post wash total motile count 19.3 prometrium 2dpiui=
 BFN
 6/11-IUI #2-100 mg clomid & prometrium post wash count total motile 17.5 =
 BFN
 7/6 IUI#3 with 100 mg clomid, estridiol, prometrium. post wash total motile
 count 23.3 = BFN
 8/30IVF#1 BCPs, Follistim, Menopur,Ganerelix,Novarel.
 ER 9/11-8R, 7M, 5F.
 ET 9/14 2 embies transferred. 1 10cell Grade 4, 1 8cell Grade 4. No frosties. BFN
 IVF#2 BCPs, Follistim, Menopur, Ganerelix, Novarel, Baby Aspirin
 ER 12/5-16R, 12M, 8F!
 ET 12/10 5dt! 1 fully expanded blast & 1 early blast. No frosties. BFN
 2/13- Saline sono revealed a polyp. All additional labwork coming back normal.
 Genetic screen revealed DH has MTHFR deficiency & I am a carrier for it.
 3/13 hysteroscopy & polypectomy
 3/27 Reproductive immunologist consult showed cystic changes in ovaries,
 restricted blood flow to ute & L Ovary. Labwork pending. Hopefully cycling in
 June.

The footer acts, as megs3084 calls it, like a Cliff's Notes version of her attempts to become pregnant. Although megs3084's footer is more detailed than most, the acronyms and conventions she employs are common not only throughout The Bump, but also are present on other infertility and miscarriage websites. Interestingly, there is no prompt on the user account page or otherwise encouragement from The Bump to suggest users ought to post their histories. Rather, the practice seems to be a spontaneous act of self-presentation of a kind. Indeed, the medical language might be a way for the users to understand themselves. Megs3084 tracks her progress through the medical procedures

and consultations she has undergone. Let's unpack the acronyms and other shorthand notations:

Megs3084 is 28 years old, as is her husband. They have been trying to conceive (TTC) since January 2011. She has been diagnosed (Dx) with unexplained infertility (a general diagnosis that is used when other diagnoses do not seem to fit) and possibly early diminished ovarian reserve (DOR, usually seen in women closer to menopause). In February of 2012, she began taking Clomid (a prescription drug used to aid ovulation) and having intercourse timed with her ovulation cycle (TI, timed intercourse), along with getting hormonal tests taken after the third day of her cycle (CD3) and 21 other tests (21 labs) which came back normal. Her husband's sperm was also analyzed (SA, sperm analysis). His sperm count came back at 6 million sperm per milliliter with normal shape and motion (morph/motil OK). All of this resulted in a negative pregnancy test (BFN, big fat negative). In April she underwent ultrasounds and a hysterosalpingogram (HSG, a test that check the fallopian tubes and uterus for any abnormalities) and found that while her fallopian tubes were clear of obstructions, her uterus is slightly arcuate (a concave shape that decreases the space in the uterus). All three of her efforts at intrauterine inseminations resulted in negative pregnancies in May, June, and July of 2012. In August she began the medications for in vitro fertilization, which included a round of birth control pills (BCPs) so the ovulation cycle could be specifically timed. By September she was off the birth control pills and ready for her ova to be retrieved (ER, egg retrieval). Eight were retrieved. Of those, seven were mature enough to fertilize, and of those five were successfully fertilized (8R, 7M, 5F). Of those fertilized, two developed into successful embryos (embies) and were transferred to her womb (ET, embryo transfer).

The transferred embryos were very promising: One had already divided into 10 cells, the other eight; both embryos were of the highest grade, meaning the cell division was occurring uniformly (1 10 cell Grade 4, 1 8 cell Grade 4). No embryos were left over for freezing (No frosties), meaning that the other three eggs that were fertilized divided in fragmented, asymmetrical ways and would not develop into a viable fetus. Neither of the transferred embryos implanted into the uterus, resulting in another negative pregnancy test. After a second round of in vitro fertilization yielded a negative result the couple underwent genetic testing that revealed the husband has Methylenetetrahydrofolate reductase (MTHFR, an enzyme that can decrease fertility). After the removal of a polyp in March 2013, she met with a reproductive immunologist, who noticed restricted blood flow to her uterus and left ovary. Presently she is awaiting the results of additional tests and hopes to try another round of in vitro fertilization in June 2013.

In these forums, we see users displaying a high degree of knowledge of medical terms and measurements. This command of medical terminology is deployed to create a sense of authority from the users in that they are the experts of their own medical histories. In these boards, the users are very similar to Epstein's (1995) AIDS patients, who likewise learned the medical and scientific language necessary to successfully lobby the FDA to change some of its procedures for drug trials. Collins and Evans (2007) have called this kind of expertise "interactional expertise" – the kind of specialized information that allows one to converse in and about, but not contribute to, a particular field of knowledge. This interactional expertise grants users a kind of individualized authority that, as we shall see in the next section, is then operationalized by The Bump's editors to abdicate their own authoritative positions.

Whose Expertise? Defining (and Abdicating) Authority

This specific, medicalized, and biopolitical definition of risk positions The Bump itself to paradoxically abdicate the authoritative role it markets itself as possessing. Indeed many parts of The Bump’s website seem to discursively position it as offering authoritative advice. The Terms of Use page illustrates this conflicted discourse. In a section titled “Be Careful Out There,” The Bump states that users assume the responsibility for judging the information on its site. Users are admonished to use “common sense caution” and to consider the “great advice on The Bump [...] as a starting point for their own research” (“Terms of Use,” n.d., para. 11). Users are warned that they “SHOULD ALWAYS CONSULT WITH A QUALIFIED PHYSICIAN OR OTHER HEALTHCARE PROVIDER ABOUT [their] SPECIFIC CIRCUMSTANCES” (para. 13). Even though The Bump asserts the website “cannot guarantee the accuracy, efficacy, or veracity of any information provided within The Bump galleries, blogs, and forums” (para. 11) and that the information provided does “NOT CONSTITUTE MEDICAL OR HEALTHCARE ADVICE OR DIAGNOSIS, AND MAY NOT BE USED FOR SUCH PURPOSES” (para. 13) – assertions that work to absolve the website’s parent company of bearing any risk associated with making knowledge claims – these assertions seem to be undercut by other statements that might imply some degree of authoritative expertise, such as its declared purpose “to inform, educate, entertain, and support parents and to-be parents everywhere” (para. 1) and its admission that it “can control [its] salaried staff member’s contributions” (para. 10).

We can see, therefore, two themes in The Bump’s terms of service – the website is here to educate but let the learner beware – themes that are at odds with each other.

How can a source claim authority enough to inform, yet deny responsibility for the information? This ultimate disavowal of authoritative access to medical knowledge is necessitated by neoliberal sensibilities of risk evaluation that have come to dominate 21st-century expertise.

Within neoliberal conceptions of risk, a single entity – be it a corporation or an individual – must bear the responsibility for danger. Due to this paradigm, The Bump’s terms of service seem conflicted, as if the company would like to educate users about pregnancy and birth but cannot assume the responsibility that comes with such authority; thus, the responsibility and the risk must be shifted onto each individual user. We shall see in the next chapter how such relationships are changed by apomediation and interactional expertise so as to mediate this contradiction, but for now we shall note that risk, as framed by neoliberal sensibilities, cannot permit both goals of education and absolution.

Likewise, The Bump’s About Us page demonstrates this tension between authority and abdicated responsibility. At the top of the page is the website’s tagline: “The inside scoop on pregnancy and parenting.” The page goes on to describe The Bump as providing “first-time parents the lowdown on fertility, pregnancy, birth, and babies [...] all in one savvy online community.” What differentiates The Bump from other health information websites and online communities, it claims, is that it offers its users “personalized advice using a wide variety of user-generated content and up-to-date community features.” Among these features are “Expert Q&As with OB/GYNs, pediatricians, sleep experts, nutritionists, stylists, baby planners, and more.” In addition to the website itself, the XO Group also sells THE BUMP Magazine, a national magazine

that is tailored to a few major metropolises to provide local information as well (Utah, Nevada, Idaho, Arizona, New Mexico, Montana, and Wyoming are among the states that have no version of THE BUMP Magazine, so Denver's version will have to suffice for residents of these states). The magazine is also discussed in the About Us page, addressed as a solution for users who are excited "but overwhelmed by all the choices."

Throughout this page, The Bump seems to position itself as authoritative, as providing the "inside scoop" and the "lowdown" for overwhelmed parents by giving its users "personalized advice," access to "experts" and more! This seeming authority is continued in The Bump's logo, which appears in the upper-left corner of every webpage. Beneath the logo is printed, "named a top woman's website by Forbes." This declaration draws on the reputation of Forbes as an authoritative news and information source to position The Bump as similarly reputable, since it has Forbes' endorsement.

And yet, the construction of this authority is not so clear-cut. In addition to the expert advice provided, the website's message boards are also listed as a feature that gives users "personalized advice." And the "inside scoop" the magazine is presenting that is supposed to help "overwhelmed parents" are tips that point them to "the tools and resources [they] need to make the best possible choices in [their] area[s]." Instead of authoritative advice (do this, do not do that), The Bump is actually offering advice for obtaining advice, that is, providing a how-to guide for being a good, informed consumer.

The Bump's abdication of authority is even reflected in its front page logo. In April 2012, the website advertised its question-and-answer pages through a rotating banner, accompanied with a cartoon woman asking "Is it safe?" in a speech bubble. At the beginning of 2013, the speech bubble text had been changed to "Did you know?"

even though the same topics (and sometimes even the very same articles) continued to be linked to. In operationalizing neoliberal imperatives, these texts reflect a consumerist logic: Individuals must gather knowledge from a variety of sources, including formal experts, in order to make informed decisions, but only the gatherer can be blamed for the effects of that knowledge.

The Rhetoric of Personal Responsibility

Glasgow (2012) argues that neoliberal governance constructs specific subjectivities that require patients to measure their own treatments and risks, and we see her finding play out on The Bump as well. Indeed, the users appear to have internalized this neoliberal mandate such that their conceptions of risk have led them to likewise feel solely responsible for mitigating that risk.

As Ruhl (1999) argues, pregnancy is increasingly constructed as a state of not only risk but of a particular kind of risk: that of maternal behavior risking the safety of the fetus. Indeed, throughout The Bump, the fetuses tend not to be discussed as subjects having agency (until the third trimester, that is). Instead, it is the mother who has the agency, and thus the responsibility, to keep the pregnancy safe and healthy. Additionally, no mention is made of a father's responsibility to safeguard a pregnancy's health (or a partner's, or an extended family's responsibility, for that matter). Indeed, the infertility boards tend to discuss the male responsibility in conception as limited; the interventions for men consist of genetic testing and sperm analysis (which are frequently discussed as absolving the man of culpability) and sperm donation (when the tests reveal male infertility), whereas the interventions to "fix" female infertility, as Megs3084's footer demonstrates, are numerous and invasive. The impetus thus rests on women to be vigilant

in monitoring and disciplining their bodies and behavior. The kind of embodied, personal experience that fosters a sense of experiential and perhaps even functional expertise that I discussed in Chapter 2 is transformed, with the introduction of risk, into a mandate all pregnant women must obey.

For instance, in the thread discussing xoxo1190's blood clot, a common theme was the responsibility each patient must bear to fight for themselves and their fetuses. Screen name =Lee=B suggests obtaining a second opinion "is justifiable. I can't see them [the hospital workers] being annoyed and if they are, who cares. You are looking out for you and baby." The burden of responsibility for lessening the riskiness of the blood clots is deployed as justifying action, even ones that might annoy or frustrate others. Similarly, screen name jtwin1 inquires about the actions xoxo1190 has taken thus far, implying that xoxo1190 is responsible for exhausting all available options. "Have you seen a hematologist? Are you seeing a high risk doctor? Have they done any ultrasounds?" jtwin1 asks. Because the individual patient, xoxo1190, is responsible for ensuring the quality of her care, xoxo1190 is at risk of putting her pregnancy at risk unless she exhaustively works toward securing her health. Screen name kimmy42, who has experienced blood clots with each of her three pregnancies, echoes this discourse of patient responsibility and the conception of health as a static characteristic that can be obtained through persistence and hard work. She credits her successful birthing to "calling and going to my OB, L&D, or hematologist if I felt like I need to." By exhausting all of the resources available to her, kimmy42 responsibly dealt with the risks presented to her and was rewarded with the birth of healthy children. She urges xoxo1190

to be vocal in her concerns, even at the cost of personal embarrassment: “You have to keep bullying them sometimes to get them to hear you.”

Having internalized neoliberal mandates for individual rationalism and personal responsibility, these women see it as their duty to have their concerns attended to. Failing to do so would mean ignoring the mandates of total motherhood (Wolf, 2011), resulting in the women themselves shouldering the blame for any and all consequences. The female users themselves are positioned as the only advocates for their health (and their fetuses’), and their bodily sensations are the only source of warning of encroaching danger. This makes a situation like a missed miscarriage all the more frustrating – how can someone responsibly mitigate a risk if the bodily sensations are not present? This frustration, perhaps, keys into another tension inherent in neoliberal ideology that reconfigures expertise in problematic ways.

Just as Wolf (2011) and Ruhl (1999) both found that maternal behavior is articulated as the true threat to infants and children, so do the users of The Bump seem to believe the ultimate danger lies in what actions they might fail to take. With both a disagreement with doctors regarding risk assessment and an abdication of authority from the website, the users seem to hold themselves responsible for knowing about and mitigating all possible threats. Screen name Lacyj67 deploys her experiential knowledge and interactional expertise to catch an oversight by one of her doctors in her fertility treatment. “So it just came to my attention that on my calendar it no where states that I will be doing a intralipid infusion before starting my lupron in sat. Hummm last time I checked... I still have a high nk cell count!” After calling her reproductive endocrinologist to ask why this round is different, Lacyj67 is told that the office had

forgotten to set up an appointment for the infusion but will do so now. “Glad I’m on top of things this time around,” she writes. “Is it just me or do we have to be so aware of everything after doing IVF [...] a few times?”

Lacyj67 sees herself as the sole person keeping track of all the complicated steps in her in vitro fertilization procedure. Although she expresses frustration, she also seems to accept her role: She does not express anger at the clinic for failing in its duties and instead voices gratitude that she herself was reliable.

Other users likewise echoed Lacyj67’s sense of sole responsibility for monitoring their health and medical procedures. Screen name zazu13 writes, “I think as an IVF patient you have to be 100% in charge of your own care and self advocate at all times.” Indeed, this feeling of a need for self-advocacy was a common theme in the comments: “You definitely have to be your own advocate,” writes screen name BrideJackie11.

Screen name liz4paws illustrates why this theme might be so prevalent:

You have to be your own advocate and many times we do have a better handle on ourselves than a clinic does because they see a bajillion patients. Also, we care more about ourselves as an individual than our clinic would...right? Just being real...I’m not saying they care but we obviously care more about us individually. :) So you HAVE to do what you have to do if things aren’t going right for your own sake. I applaud you for reminding them!!

Screen name luvboston argues, “You have to basically be your own doctor and nurse.” In her statement, we see the donning of not only the kind of personal responsibility demanded of neoliberal citizenship but also a kind of medical authority. By accepting the idea that pregnancy is always at risk of becoming high risk, the users feel responsible for tracking their procedures and advocating for themselves in ways that used to be done by doctors and healthcare professionals.

Indeed, we might explain the vigilance of these users, as well as the medical language deployed in users' posts and footers, as indicative of specific neoliberal disciplining. Foucault (1995) argues that "power and knowledge relations [...] invest human bodies and subjugate them by turning them into objects of knowledge" (p. 28). These relations play out on The Bump by shifting authoritative responsibility onto the users themselves. Neoliberalism mandates that each individual monitor his/her body for signs of failing health so that each individual can change unhealthy behaviors or pay money to the medical establishment to restore health. Each woman must use either her embodied, sensuous knowledge (discussed in Chapter 2) or her newfound medical terminology (gained through interactional expertise and experience) to monitor her body for abnormalities and report it to a healthcare professional. If she does not, cultural blame is shifted onto the woman for not properly attending to her body (Murphy, 2000; Ruhl, 1999). In making self-monitoring compulsory, neoliberalism disciplines the pregnant body into an object of self-study.

Conclusion

In this chapter, I have shown how neoliberal imperatives have reconfigured notions of expertise through endorsements of specific definitions and treatments of risk. Specifically, neoliberal articulations of risk, authority, and responsibility are operationalized on The Bump in specific ways that encourage users to learn and employ medical language and medical definitions of risk as associated with abnormality. However, because they have also internalized the idea that each pregnancy is unique, there is always the possibility that a "normal" pregnancy could become "abnormal" and therefore high-risk. These rhetorical moves further encourage the users as patients to

view themselves as solely responsible for predicting, containing, and neutralizing each threat, a position that encourages constant self-monitoring. Likewise, although the trope of authenticity appears to free The Bump users from reliance upon (frequently male) authority by vesting them with their own source of expertise, in fact this shift to an epistemology of individualized bodily sensations transforms their bodies (and their fetuses) into subjugated objects of knowledge. Individualized expertise is not optional – it is compulsory. Absent from these discussions, however, are the ways in which the patients' ability to perform these mandates might be limited. Not every patient can learn medical language and apply it to his or her own health, nor will every patient have the time and money available to be their own doctors and nurses. As we shall see in the next chapter, some see a process of peer knowledge sharing as a solution to this problem inherent in neoliberal ideology. However, such solutions come with their own problems as well.

CHAPTER 4

BURDENED BY CHOICE: APOMEDIATION

AND EXPERTISE

This chapter explores the connections among expertise, neoliberalism, apomediation, and choice. “Apomediation” is a term from medical informatics literature to describe the use of formal expertise to guide information seekers to useful resources that might answer a seeker’s question rather than using one’s formal expertise to answer the question directly. In this literature, the concept is treated as a solution to assisting patients with making their own decisions yet not overwhelming them with information overload.

Apomediation seems to balance individual knowledge with expert authority in that, proponents argue, it works to bring patients and doctors together in a co-production of knowledge; however, the neoliberal ideology within which this solution operates creates tensions, even paradoxes, that warp how expertise functions – even the possibility of how it could function – in healthcare and online contexts. These tensions arise from the mandate to “make good choices” in consuming not just health products, but also health advice. Therefore, pregnant women are expected to gain expertise in their pregnancy and to apply that expertise in good decision-making. This mandate reduces experts from being authoritative sources of knowledge to just another opinion among the

many a pregnant woman must weigh. In this way, apomediation does not put the formal expert and the lay patient on equal footing for the co-production of knowledge; it still insists on the lay patient-cum-expert making the final decisions.¹ In this chapter, I turn to examining the technical design of The Bump itself to see how it might play a role in drawing a boundary between “experts” and “laypeople.” What kinds of boundaries are drawn? In what ways are these boundaries contested, blurred, erased? Most importantly, how and why are these boundaries constructed as existing and worth either defending or contesting?

Since I am looking at the website itself as a technological artifact, it will be helpful to first engage with some of the literature in Science and Technology Studies (STS) that theorizes the technology-user relationship. Then I will delve briefly into the apomediation literature. As this chapter’s conceptual hook, apomediation helps us to better understand the way neoliberal sensibilities enable certain expert-lay interactions while simultaneously constraining others. Finally I will examine empirical evidence from the website itself to show how the technical design apomediates expertise as well as encourages apomediative behaviors from both its users and formal experts.

STS Perspectives of Technology

As the fledgling field of Science Studies turned its attention to the study of technology during the late 20th century, the issue of materiality became prominent. Early

¹This chapter will frequently refer to the impetus placed on pregnant women to make “final decisions.” Obviously, a woman giving birth in a hospital will often yield decision-making authority to the medical professionals, especially if the delivery is seen as endangering the lives of the woman and/or child. It could be argued that in these situations the pregnant women are not making any decisions. However, it should be kept in mind that giving birth in a hospital is itself a choice, one of the many pregnant women must weigh. In this sense, the burden of choice is still placed upon the women, and it is this sense in which I refer to “final decisions.”

descriptions of how a given technological artifact is produced and used within a given society often leaned toward the deterministic (e.g., Winner, 1980), granting technology the sole power to shape society. Other works fell at the opposite end of the continuum, ascribing full agency to the social groups who used and constructed a given technology, while stripping agency from the things themselves (e.g., Pinch & Bijker, 1989). The materiality of a technological artifact became just another resource at its creators' disposal.

As the 1990s dawned, STS scholars began to integrate the two perspectives. Describing technology as arranged in "large technical systems" (Hughes, 1989) scholars began to recognize the interconnectedness of material things, social groups, and a given technology's meaning and use (Callon & Latour, 1992; Callon, 1986; Latour, 1992; Law, 1989). Combining a large technical systems paradigm and Latour's (1992) injunction to remember the materiality of technology, STS scholarship began to emphasize both the material and discursive dimensions of technological artifacts (Akrich, 1992; Law & Mol, 1995; Law, 2009).

One such integration of the material and discursive elements of technology is the notion of scripting. A script is a scenario or set of instructions built into a technological artifact (Akrich & Latour, 1992; Akrich, 1992). This inscription of instructions may be followed by a user, or it may be altered or even outright ignored. The scholar of technology, then, can "read" the scripts "written" in a given technology to understand the processes of its creation as well as the way members of society "read" and/or "re-write" its scripts (Kazmierczak, 2003). In this way, the notion of the script allows scholars to analyze the reciprocal and symbiotic relationship between technology and society.

Studying technology this way requires scholars to assume “that a technical device can be described in terms of a scenario, defining a sharing of competences between the artefact proper, its user and a set of social and technical elements constituting their common environment” (Akrich & Pasveer, 2004, p. 65). Basic script research also examines “how circumstances can influence how an inscription in technology is performed,” (van der Velden & Mörtberg, 2012, p. 4). Thus there is also a performative dimension to the concept (see also Akrich & Pasveer, 2004).

By discussing scripted (and descripted) behavior, the script approach also encourages consideration of the designer-user relationship (Plesner & Horst, 2012), a notion that dovetails nicely with Woolgar’s (1991) conception of “configuring the user.” For example, Nelly Oudshoorn’s work especially has focused on the alignment (or lack thereof) between the imagined, future user and real users (Oudshoorn, Rommes, & Stienstra, 2004; Oudshoorn, 1999). Early script-user research tended to favor the production side of technology, focusing on how a designer might conceive of future users and how those conceptions become inscribed in the artifact.

Although the design of a given technology can and does limit what a user can do with it (Akrich & Latour, 1992; Winner, 1980; Woolgar, 1991), nevertheless technologies are always open to contestation or appropriation. More recent scholarship, especially, has focused on how users are often co-constructed along with the artifact as well as how users have resisted designers’ inscriptions (Hyysalo, 2006). For example, De Paoli and Storni (2010) argue that scripting actually can be indicative of a division of labor between the designer and the user, a position which harkens back to Latour’s (1992) concept of delegation. The study of new media has been particularly well-suited to

this research paradigm as well. For example, Plesner and Horst (2012) argue that new media technologies encourage not only user participation but also appropriation. They studied a group of architects who used the online game Second Life to explain architecture to clients. Thus technological artifacts should be considered as perhaps the site of ongoing discussions between designers and users. Indeed, a technological artifact is more than a material thing; it is also a medium of communication (Silverstone & Haddon, 1996). Finally, we should bear in mind that the configuration of one group of users might encourage describing by another group; that is, not all user groups can be scripted uniformly. When viewing technology as theorized in STS literature, then, it becomes a complex artifact, the site of struggles over meaning, politics, and ideology. This chapter will treat The Bump's website as a technological artifact in the STS sense, analyzing the ways in which the code, layout, and technical design elements invite users to adopt or eschew certain behaviors: In this case, a version of apomediation that reifies neoliberal ideology and its emphasis on choice.

Apomediation Defined

Before continuing on to analyze the website itself, it will be useful to explain more fully what is meant by "apomediation." The term comes out of medical informatics research that is concerned with information transfer from the body of medical knowledge to the public at large. Even this starting assumption (that information can/should be transferred from an authority to the public) would be considered problematic by STS and communication scholars alike, but the concept itself is worth more consideration given that it describes common online practices. Indeed, in the information overload the Internet provides, credibility is "increasingly associated with peer-ratings rather than the

individual user's critical analysis of the source" (Mayer, Smith, & Rios, 2008, p. 188). Therefore, rather than reading the medical literature regarding the safety of epidurals or outright asking friends and relatives what they did, a pregnant woman might ask instead for a book or website that explains the different sides in this debate or ask friends how they came to their decisions.

Apomediaries "'stand by' and provide added value from the outside, steering consumers to relevant and high-quality information" (Eysenbach, 2007, p. 162). In Eysenbach's definition of the term, users, peers, online communities, experts and opinion leaders all have the potential to act as apomediaries (Eysenbach, 2007, 2008a).

Notable in Eysenbach's conception of the term is how he contrasts it with intermediation and disintermediation. Traditional health information dissemination is explained as occurring from doctor to patient, from expert to layperson. In this model, the expert is an "intermediary" who filters out erroneous and irrelevant information prior to dissemination to the layperson in a process called "upstream filtering" (Eysenbach, 2007). In intermediation a formal expert gives a layperson a direct piece of advice: Eat this, do not do that. The layperson can still decide to follow the advice or not, but he or she is not given the opportunity to assess the information the formal expert has weighed in coming to her or his conclusion. In apomediation, the layperson would be privy to that information and would conclude for him/herself whether to eat this or do that. Intermediation is treated in the informatics literature as the "traditional" or "normal" mode of communicating formal expertise, a mode that is disrupted by "consumers and patients [...] finding new ways to arrive at relevant and credible information" outside of the formal expert's authority (Eysenbach, 2007, p. 162).

Frequently, the Internet is positioned as facilitating or even encouraging consumers “to go ‘directly to the source’ of information instead of relying on a gate-keeper such as a doctor or other health professional” (Koch-Weser et al., 2010, p. 280). The defining characteristic of an apomediary, then, is the degree to which formal experts grant autonomy and access to the information seeker. This characteristic blurs the distinction between intermediation and apomediation; indeed, a single person may act alternatively as an intermediary and an apomediary. For example an individual consumer may ask a formal expert for a clear recommendation at first, then gradually might come to prefer the formal expert to merely provide helpful resources that will permit her to decide for herself what the best course of action will be. Eysenbach theorizes this shift to occur as a patient’s autonomy, self-efficacy, and personal knowledge increase (Eysenbach, 2008b). The greatest degree of autonomy is required of disintermediation, or the complete circumvention of formal experts in the search for information. We might consider, for example, the rhetorical constructions of embodied, experiential expertise discussed in Chapter 2 as instances of disintermediation, where the pregnant users of The Bump circumvented formal medical knowledge to arrive at their conclusions regarding an epidural’s safety.

In Eysenbach’s own work and in subsequent studies utilizing apomediation, the primary focus has been on the message content and/or the communicators involved (e.g., Abrahamson, Fisher, Turner, Durrance, & Turner, 2008). Less attention has been paid to the technological artifacts that often play a key role in apomediation. For example, although Eysenbach (2008a, 2008b) notes that digital communication tools – such as personal health records, eHealth websites, and Health 2.0 applications – often help to

increase access to information, this nod to the technologies involved is nevertheless brief and underdeveloped. In this chapter, I strive to expand apomediation research by putting the technologies involved at center stage while simultaneously working to adapt the concept to a more complex understanding of communication than the linear model implicit in the informatics research.

I argue that the technical structure of The Bump rhetorically positions the website itself as an apomediary that can vet experts and users alike, a role that ultimately undercuts the formalized expertise presented in its webpages since the website points to formal experts and users as equally legitimate resources. This undercutting might seem paradoxical but is sensible when viewed through a neoliberal lens: in neoliberalism, what one chooses becomes less important than the act of choosing itself (Weingarten, 2012; Whitehead, 2011). Thus apomediation, which could function as a means of co-production of expertise, is harnessed to reify neoliberal mandates that valorize choice.

The Bump as Apomediary: Vetting Users

By relying on content generated by users, The Bump facilitates apomediation within its online community. Users are encouraged to submit questions through a variety of channels throughout the website. For example, in addition to the message boards, which are dominated by users seeking answers to particular questions, The Bump also hosts question-and-answer pages and topical articles. The presence of this content helps to establish The Bump as a hub of information pertaining to pregnancy.

The design of the message boards positions the website itself as an apomediary as it legitimizes users' experiential knowledge through the unique features of the signature blocks. Besides allowing the usual customization of the "footer" of a user's post

(taglines, pictures, etc.), The Bump also lets users add a variety of icons collectively called “flair.” Of particular interest are the pieces of flair called badges and tickers, which together help to provide additional user credibility cues not unlike the Bump Expert icon discussed below. It will be useful to recall that The Bump is one of several website products offered by XO Group (its partner websites being The Knot, The Nest, and The Blush). Flair created in one website will carry over to the others thus it is possible to deduce how involved in the online community a given member is, and for how long, based on the kinds of badges and tickers display in the signature block.

The tickers in the signature block will count down to an event specified by the user (a wedding day, a due date, etc.) and after that event’s passing will count the number of days since it occurred. After a child is born, for example, The Bump tickers will change from counting down to the due date to tracking how old the child is. There are also tickers that track the fetus’s week-by-week development by comparing its size to various fruits and vegetables.

The badges function in much the same way as the tickers. They are small squares featuring the website’s standard color palette and an icon or a few words. The badges’ topics are coordinated with the theme of each of the different websites, thus a user getting married in July might add a summer bride badge to her signature block. Upon moving over to The Bump, she might add a trying to conceive badge and might or might not keep the summer bride badge. Within The Bump, there are badges corresponding to many different means of identity creation, from those preferring natural birth to those who have suffered the loss of a child, infant, or fetus. There are even badges to mark such specific identities as those who are planning to have or have had a vaginal birth after a Cesarean

section. Thus these icons are better thought of as identity markers than badges, since the users themselves select whether to include them in their message board signatures and thus what aspects of their identity to communicate. Therefore it is telling that The Bump calls these icons “badges,” a word that implies some task has been undertaken to earn them. This design choice works rhetorically to deploy the badges (and the tickers) as a credibility cue that allows users to evaluate each other’s comments based on the amount of time someone has been a member of the website – users who have been part of the community for a longer time are seen as more credible than users who have only recently joined and have not contributed much. (The Bump also keeps track of contributions though points and medals, discussed below.) Additionally, the implication that adding a badge to one’s signature is something earned or awarded raises the value of each decision regarding the birth the mother and/or the couple have made. Thus deciding to only breastfeed one’s child not only allows a user to connect with other like-minded breastfeeders but is also presented as an achievement. In this way, the neoliberal mandate for individual choice is upheld in this valorization of decisions made.

Another technical element of message boards that vets users is the point system. Each user is awarded points for the number of posts they write, as well as the number of views, replies, and quotes each post receives. These points are displayed beneath a user’s handle and picture, along with the total number of posts made, the date joined, general location, and a label indicating the user’s involvement level (newbie, bronze poster, silver poster, or gold poster). These technical elements enact an ideology that values time investment and frequent participation from the users. Thus those who have been involved in the community for a long time are constructed as being more knowledgeable and

credible than those who have just joined. They also function to screen out spammers, people who make accounts on the site for the sole purpose of advertising a particular website or product. Indeed, the message boards have strict rules against posting content that advertises a user's business. Even posting a link to an Etsy account is forbidden (Etsy is a website where users can post and sell homemade crafts). With the exception of promoting personal businesses, links to websites outside of the XO Group are permitted and the design of the message boards makes such linking easy. We might say, then, that the codified rules of The Bump align with and clarify the behaviors permitted by the website's computer code. However, those behaviors which are enabled by the code(s) of the website and those which the users actually perform can be two different things: linking to content outside of The Bump is rare and users seem to prefer using such in-site features as quoting and replying.

The quoting design feature is similar to that commonly found on other message boards, wherein a user can refer to a previous post by directly displaying the content of the other post in some kind of quotation. Different message boards render this quotation in different ways. On The Bump, the quoted material starts off the new post, with the quoted author's username in boldface followed by a colon. The quoted post then appears in plain text (not italicized or with a different font color, as is customary with other message boards), with the text and author encapsulated in a thin box. The quoting user's post then follows, along with her signature block. The message board's design affords only the most minimal indication that the beginning material is a quote, choosing instead to visually highlight the commonality between the two posts by presenting them in the same typeface, color, and size. This design choice dovetails with users' seeming

preference to use themselves and each other as evidence for knowledge claims. Although it is possible for them to find and link to information from experts (both from within and outside of The Bump's website), the users eschew this function in favor of using the quote feature: in the epidural thread discussed in Chapter 2, the link to the Slate article is the only outside link, while users quoted each other five times in 19 posts. In this way, the discursive patterns of the users along with the design features of the message board itself invite a view of the discussion as one among equals, wherein each individual viewpoint is valid, worthy not only of consideration but also a legitimate source of expertise.

The Bump as Apomediary: Vetting Experts

As discussed above, apomediation is situated on a continuum between intermediation and disintermediation. Eysenbach (2008a, 2008b) theorizes that the actors involved in online information dissemination may freely alternate among the different roles or even use them in combination. The expert-as-apomediary is a resource utilized by an information consumer who acts more autonomously in gathering, vetting, filtering and using information (Eysenbach, 2008a). The expert-as-apomediary may be most helpful when he or she can direct consumers to credible resources and reliable tools, to "help users navigate through the onslaught of information afforded by networked digital media, providing additional credibility cues and suppling further information" (Eysenbach, 2008b, para. 26). The Bump's experts freely alternate between apomediation and intermediation in the kinds of advice they provide. For example, at one level, the website's pool of experts sometimes help to answer users' questions by recommending certain resources or tools, such as a book, another website, or The Bump's own collection

of pregnancy tools. This kind of guidance is a clear example of apomediation. At other times, however, The Bump's experts will use their specialized knowledge to simply answer the question posed by the users, an example of intermediation. The role of the formal experts is further complicated by the fact that all of The Bump's experts are women and most of them have children. Frequently, the intermediated responses will also include information drawn from personal experience, a typical characteristic of apomediation.

Additionally, the fact that The Bump's editorial staff has selected these experts to respond to user's questions means the website itself is performing as an apomediary, vetting and filtering potential experts to arrive at a collection of resources the users may utilize. Indeed, the very design of the website itself works to legitimize The Bump's experts for the users; the technical elements of the website – its very code – communicate the editorial staff's efforts to apomediate health information. For example, most of the experts' responses are marked with an icon labeling the respondent as a "Bump Expert." This icon serves as an explicit credibility cue that users can quickly read and use to weigh the credibility of the source and the validity of the message.

Just because the Bump Expert icon is present, however, does not mean users blithely accept the information presented as expert advice. Contestation of the expert's information occurs regularly among the users in the comments section. In STS terms, while the technical design of the website might present a specific script for interpreting advice given from formal experts, the users are under no obligation to accept and follow that script. At the same time, what allows this contestation to be most salient is the fact that the website even permits comments to be posted in response to the articles.

Following every Q&A article, for example, is a blue button labeled, “give an answer.” Clicking this button will open a comment box, and after submitting a comment the user is thanked for contributing her/his feedback.

Although it is supposed to represent authority, the Bump Expert icon can also be diluted in its use. For example, some question-and-answer pages, particularly those pertaining to matters of social mores as opposed to medical issues, are answered by staff writers by compiling comments from users in the forum. An answer page on decoy baby names illustrates the practice. A user submitted the following question for answer by an expert: “People keep asking about baby’s name and I want to keep it a surprise — should I use a decoy baby name?” The answer begins with staffer Kylie McConville explaining what a decoy baby name is: “Using a decoy baby name means telling everyone you’re planning to name the baby one thing (Angelique) -- when all the while, you know it’s going to be something else (Sophia!).” McConville then offers a few possible explanations for such a practice – some people like having something that is secret when so many aspects of pregnancy are public while others might be concerned about hearing people criticize the chosen name. Then McConville moves into presenting 12 users’ reasons for employing a decoy name. While this answer does provide some insight into one view on decoy names, it does not actually answer the original user’s question regarding whether one should use decoy names or not. Instead, the 12 users create a one-sided discussion of the topic. Despite being written by a staffer, not answering the original question, and relying heavily on the opinions of average users, the article is still marked with the Bump Expert icon. This article (and other ones that similarly present users’ comments) blurs the boundary between formal and distributed expertise. Is

McConville the expert for having manufactured a consensus on decoy naming? Are the 12 users individually (or perhaps collectively) Bump Experts? Such a seemingly casual usage of the icon functions to dilute its meaning, for if everyone is equally an “expert” in the formal sense, then no one is. As Collins and Evans (2007) rightly point out, no one is considered an expert in getting out of bed, since it is an act everyone performs expertly every day. In their terms, the lax usage of the Bump Expert icon has the effect of turning every user’s opinion – no matter how it is founded – into a ubiquitous expertise.

Experts and Laypeople: Blurring Boundaries

Thus far, we have seen how the technical design of The Bump positions it as the ultimate apomediary, vetting both users and experts alike as sources of information. However, this process of vetting both groups ultimately undercuts the formalized expertise presented in its webpages since the website treats formal experts and users as equally legitimate resources, in a sense blurring the boundaries between a formal expert and a lay user.

The comment sections that follow articles and FAQs are a good example of this blurring of boundaries. In these comment sections (which are not to be confused with message board posts) users, designers, experts, and spammers all navigate the tensions between and among these various groups. These comment sections follow articles written by Bump Experts or the editorial staff to convey basic information about pregnancy or to answer frequently asked questions; these articles are the primary communication medium through which experts can directly address the users of the site and position the Bump Experts as intermediaries of information that might normally pass directly from doctor to patient. They are also the primary site of the users’ direct engagement with the experts, in

addition to being the primary pages utilized by spammers. Indeed, these sections of the website represent places where credible information exists beside decredited sources, where lay people challenge experts, where apomediation meets advertisement. The comment sections are stripped down, including only a user's screen name and a generic Bump avatar (even if a user has replaced his or her forum avatar). Missing from the comment sections are the technical elements discussed above: These pages lack badges, tickers, points, medals, the date the user joined, and moderators, for instance. Indeed, the website's editors and designers have eschewed moderator oversight of these sections, allowing spammers to post unrelated content and links as replies.

The comments sections all begin with the heading, "Have something to say? Share your opinion and advice." Users are then required to log in if they wish to post a comment. Comments are often formatted to look similar to the expert's post, so the impression is given that the page is one long discussion. In fact, the expert's name and credentials are rendered in tiny gray font, making them hard to read; the only thing differentiating the users from the expert is the Bump Expert icon.

The boundaries between formal experts and lay users are also blurred in the website's video demonstrations. These videos are mostly of experts demonstrating particular techniques (e.g., how to feed a newborn) and to address common questions (e.g., about sleep patterns or nutrition). Within the content of the videos, the experts will intermix their occupational knowledge with personal anecdotes from their own pregnancies and childrearing. Indeed, all of the experts in the videos are mothers with young children. Selecting these particular experts, of course, is another design decision made by the website's editors and programmers, something belonging to the material

dimension of the website. It is difficult to ascertain whether the website editors, in selecting experts who had also given birth, likewise coached these women to address their personal experiences. However, the adoption and deployment of the same credibility criteria used in the message boards (and discussed in Chapter 2) is striking.

Although The Bump's technical design does not permit the posting of comments after videos, the editors have permitted users to submit videos of their own. These videos are formatted the same as those featuring a formal expert, except the identification bar at the bottom of the screen bears the user's name and hometown instead of a field of expertise. This usage of the title bar appropriates the journalistic convention of identifying experts with their credentials (e.g., Jane Doe, pediatrician) and identifying witnesses by their place of residence (Jane Doe, Salt Lake City resident). It is as if these women, by virtue of being pregnant and/or having given birth, are bearing witness to important events – an experience that is valuable when shared with those who “weren't there,” i.e., the women who have yet to give birth. In this way, the boundary between formal expertise and experiential expertise is blurred as both groups are legitimized by The Bump in similar ways.

Another way the boundaries between experts and users are blurred on The Bump is through the badges discussed earlier. Because the badges are roughly the same size and colors as the Bump Expert icon, the badges seem to grant users – by virtue of their labeled identities and experiences – near-equal status as the experts. Just as Wynne's (2004) hillside farmers used their identity and experience as sheep farmers to challenge the government officials' and scientists' expert information, so, too, can users of The Bump claim legitimate knowledge from their identity as a breastfeeder (or natural birther,

or green parent, or in vitro fertilization receiver, etc.). In a sense, by validating everyday lived experience as a legitimate knowledge source, the badges invalidate the formal expertise to a certain extent. For if this user's experience with a Cesarean section "earns" her a C-section badge and legitimizes whatever information about C-sections she provides, it becomes tempting to read the expert's information as just another viewpoint among many presented, just another node in a large network. These technical elements simultaneously function to legitimize users' information and delegitimize the website's own experts, placing users and experts in equal positions of authority. In this way, by legitimizing users' information with badges, video formats, and the design of the comments sections, The Bump appears to encourage intermediation and disintermediation of information provided by its own experts.

Code, Politics, and Neoliberal Paradoxes

Thus far, we have seen how The Bump's code works to position it as an apomediary vetting users and experts alike, and that this equal treatment of both groups has the effect of obscuring the very boundaries between expert and lay user that the website itself has erected. It might seem contradictory to distinguish certain actors as experts and then to undercut their expertise by portraying users' information as equally valid. However, this contradiction in fact arises out of tensions inherent in neoliberal ideology, which views all knowledge as carrying equal weight and asks individuals to choose which to consume. The valorization of choice, in particular, is of relevance here because it creates a paradoxical relationship between the formal expert and the layperson: Although the formal expert is vaunted as providing important advice, the burden of accepting or rejecting this advice eventually falls to individual laypeople.

The terms of service best illustrate this inherent tension. As discussed in the previous chapter, the terms of service of The Bump seem contradictory, especially when considering the neoliberal lens through which they are viewed. Although the site claims to provide no specific medical expertise, it still asserts (in all capital letters, no less) that “THE INFORMATION AND SERVICES PROVIDED BY OR ON The Bump (INCLUDING BY THE KNOT OR BY ANY THIRD PARTY) ARE INTENDED FOR EDUCATIONAL PURPOSES ONLY” (“Terms of Use,” n.d., para. 13). It is this claim, “for educational purposes” that particularly intrigues me. Many popular experts (particularly those writing advice columns or hosting radio or television call-in shows) absolve themselves of responsibility under the guise of offering advice “for entertainment purposes only.” Hence it is interesting that in attempting to perform the same perlocutionary effect The Bump has altered the basic locution. As noted, within an authority paradigm the themes of education and absolution from responsibility are at odd with each other. How can the website claim to educate and to inform while simultaneously admonishing users to be the ultimate judges of how to use this education and information? However, within an apomediation paradigm, this move is not only not contradictory, it is necessary. Although The Bump cannot legally provide authoritative information on pregnancy, it can provide meta-expertise for evaluating information. Ultimately, what to do with the information still rests with each user. Thus, the “education” provided by The Bump would not, for example, purport to settle the epidural debate but rather would give users the tools to evaluate various claims made in the debate.

Just as the codification of policies in the terms of service reflects and exhibits the underlying neoliberal ideology, so, too, do the assortment of tools that have been coded into the fabric of the website incorporate neoliberal values. Calendars are frequently mentioned in discussions of online health applications for pregnant women (Piras & Zanutto, 2010), so it is little surprise then that The Bump includes a calendar tool in its website as well. Unlike many other so-called Health 2.0 websites that seek to integrate health information with online interfaces, The Bump does not limit its tools to just a calendar. Perhaps because The Bump editorial staff is comprised primarily of women and mothers, the website offers a comprehensive suite of tools likewise aimed at women, ranging from ovulation charts for couples trying to conceive to contraction timers for those who think they might be in labor to feeding schedules and immunization records for new parents.

Indeed, the fact that other Health 2.0 sites (such as those analyzed by Mayer et al., 2008) provide only a calendar tool for pregnant users seems to invite a construction of pregnancy as nothing more than a passive waiting game, as if time is the primary – if not the only – consideration to be made. This privileging of time seems to allude to a male perspective of pregnancy wherein there is nothing to be done but wait. The Bump's extensive tools seem to invite an empowerment of the pregnant women to be active in gathering information and making decisions – both tenets of neoliberalism. In a sense, then, neoliberalism is not through and through oppressive since its values help to open possibilities that users might see as empowering, which is perhaps an improvement over websites that make pregnancy into a period of passive downtime.

And yet, this emphasis on empowering women is itself paradoxical, because it also isolates them as individual decision-makers. For example, many of The Bump's educational pages link to its checklist tool, which not only outlines vital action items for expecting mothers, but also explains how to find and "interview" potential doctors, midwives and other healthcare professionals. As mentioned in Chapter 2, there is a kind of synecdoche functioning with the tools whereby parenting is portrayed as breastfeeding and conception is ovulation. Clearly, in moving from the special (breastfeeding) to the general (parenting), important aspects are left out, such as the role of the father of the child and/or the woman's partner.

It is important to remember that just because a given technology is designed to invite certain uses and specific interpretations does not mean a user will heed those invitations (Eglash, 2004; Kline & Pinch, 1996). Nevertheless, it is important to be aware of the dominant scripts encoded in a technological artifact because they can help to reveal information about the ideology in which they were created and in which they operate. For example, the focus on pregnancy as an individual woman's concern – not the concern of a couple or an extended family or society at large – means the pregnant user must actively work to incorporate these other groups in the decision-making process if their involvement is something she wants. Neoliberal politics are inscribed in the code(s) of The Bump; there is always room for resistance, but users must work hard if they wish to use the website to ends never envisioned by the designers.

Conclusion

Apomediation is a hopeful turn in medical informatics that seeks to bring patients and doctors together in a co-production of knowledge. In the literature, the concept is

treated as a solution to patients overwhelmed with the information overload the Internet so easily facilitates. However, it is also a means of containment. When the patient must ultimately decide whether to give birth at home or in a hospital, to have an epidural or not, to try another round of in vitro fertilization or to adopt, the decision and its risks are borne by the patient. Apomediation, as it plays out on The Bump, ultimately disciplines its users into neoliberal citizens who internalize their individuality as necessitating unique decision-making. In this chapter, I have shown how The Bump positions itself as a primary apomediary, validating both experts' intermediation and users' turn to both apomediation and experiential expertise. The website's role, however, ultimately undercuts the formalized expertise, since it points to formal experts and users as equally legitimate resources. This central contradiction is made visible when viewed through a neoliberal lens in that neoliberal sensibilities deemphasize the kinds of choices available to a pregnant woman and instead privilege the act of choosing in itself. The contradictions that arise from The Bump's apomediation are, in fact, tensions inherent in the neoliberal ideology in which it operates. Although this ideology is not, in all cases, uniformly oppressive, nevertheless it constrains the ways in which users can obtain information regarding their pregnancies as well as disciplining the expert-lay relationship. In this way, neoliberal sensibilities have undergirded a push to define and use expertise in health decisions by emphasizing the necessity of personal choice in the optimization of safety and happiness.

CHAPTER 5

CONCLUSIONS: EXPERTISE AND THE NEOLIBERAL SOCIETY

Throughout 20th- and 21st-century America, scientific expertise has been routinely challenged in the public sphere (Oreskes & Conway, 2010) not on the basis of method or merit, but on the credibility of the scientists themselves (Hilgartner, 2000). In short, interactions between scientists and the American public have highlighted the ways scientific expertise relies upon rhetorical constructions of credibility. To more fully assess and understand the state of scientific communication in today's postmodern, fragmented public discourse, additional study of expertise as a rhetorical construct is warranted. This thesis has been an examination of a specific expert-lay relationship: that of healthcare professionals and their patients, in this case pregnant women. To examine this interaction, I looked at a particular website, TheBump.com, which posits itself as the providing "the inside scoop on pregnancy and parenting."

The Bump warrants analysis because it provides a unique space in which experts and users interact: Formal experts interact with lay publics, both directly and indirectly; users sometimes accept and other times challenge that expertise with their own embodied knowledge; and specific discourses of risk and choice are deployed in the vetting of information.

Additionally, The Bump is a health website interested in providing information regarding pregnancy, but it is not affiliated with a healthcare organization or medical research institute. It is a Web 2.0 application driven by user content, but it does not employ the kind of data mining and advertising characteristic of today's social media.

Finally, as a website with archived message board discussions, The Bump was ideal for performing a critical rhetorical analysis of the users' discursive treatments of expertise. The Bump provided conversations regarding expertise and decision-making in a context not possible through laboratory reconstruction or surveys: The conversations were as close to natural, vernacular discussions as possible, given the online medium. This circumstance was key to studying how everyday laypersons might discuss expertise.

In studying The Bump, I have shown how neoliberal sensibilities reconfigure expertise by deploying authenticity, risk, and apomediation such that pregnant women are vested with the task of identifying, consuming and correctly applying expertise to their decision-making. In Chapter 2, I found that embodiment, the online context, and specific configurations of knowledge, all work to legitimize personal, sensuous experience as a wellspring for expertise. This finding showed how neoliberal imperatives have adjusted conceptions of expertise in order to valorize the importance of individual knowledge and foresight as the key to proper decision-making. In Chapter 3, I showed that neoliberal imperatives are further operationalized through definitions of risk as an ever-present threat that individuals must bear the responsibility of monitoring and mitigating. Finally, in Chapter 4, I argued that the rhetorical strategy of deploying neoliberal sensibilities in the construction of expertise extends to even the technical structure of The Bump. This structure functions to position the website itself as an apomediary that points to formal

experts and users as equally legitimate resources, a strategy that functions to reify neoliberal mandates that valorize choice and personal responsibility.

Throughout this thesis, I have used neoliberalism as a conceptual tool to understand how and why defining and using expertise in specific ways has come to be seen as central to making decisions about one's pregnancy. Indeed, the specific dimensions of expertise this thesis has studied – authenticity, authority, and apomediation – have counterparts within neoliberal ideology as specific imperatives, viz. to self-educate and gather knowledge; to become one's own authority and be individually responsible for one's decisions; and to view any situation as a matter of individual choice. Thus, we can understand expertise in neoliberal societies as being defined and deployed to attribute knowledge, responsibility, and choice to individuals with the ultimate result of undermining professional, formal expertise as well as reifying and protecting neoliberal capitalism itself.

As I showed throughout this thesis, neoliberal operationalizations of expertise are not necessarily altogether good or bad, but instead they can be problematic in specific ways. For example, although neoliberal imperatives help to open space for lay expertises that could be empowering for pregnant women and their partners, those same imperatives also limit who is positioned for empowerment by ignoring difference. Although neoliberalism asks that laypeople be involved in their healthcare, The Bump users specifically expressed frustration that the burdens of decision-making, health monitoring, and risk assessment frequently fell to them and not to the healthcare professionals charged with administering care. Finally, although neoliberal imperatives valorize individual experience and judgment, this move essentially renders formal expertise as just

another choice among many, obfuscating information that might be gathered from professional experience or accumulated knowledge. Neoliberal operationalizations of expertise, then, complicate the expert-lay relationship in ways that offer no clear resolution.

This thesis has striven to contribute to two distinct areas of research: rhetorical criticism and science and technology studies (STS). Within STS, this thesis has helped in a small way to advance the study of expert-lay interactions by exploring lay constructions and appropriations of the notion of expertise. Traditional positivist conceptions of expertise typically deploy the term in the “formal expert” sense: Someone is an expert because specific credentials make her or him an authority in a particular field. Much of STS research on expertise has worked to complicate this notion, showing how lay publics can and do develop their own kinds of expertise (such as the experiential, functional, and distributed expertises discussed throughout this thesis). Scholars continue to develop this line of research by asking how formal experts and lay publics can work together to more fully understand a given issue. This idea of a co-production of knowledge seeks to integrate and balance the kinds of knowledge contributed by various groups, but this line of research will be incomplete if it does not more fully address the broader ideologies in play, specifically the extent to which online interactions help to encourage the operationalization of neoliberal sensibilities in the construction of expertise.

This dimension of expertise is important to study because the present research has shown that neoliberal sensibilities can both enable and constrain specific notions of expertise and its role in modern society. Although much STS work has been done on scientific knowledge and democratic governance and on expert-lay interactions, not

enough work has been done that marries these two lines of research (Jasanoff, 2003), and even less that utilizes a critical rhetorical approach. This thesis shows that such an approach can be useful in uncovering the ways expertise is reconfigured in accordance with neoliberal sensibilities, but other ideologies could likewise shape expert-lay interactions. Uncovering the various ideologies in play will help us to understand expert-lay interactions in the broader contexts in which they occur.

This thesis has also striven to contribute to rhetorical criticism. The scholarship within the field of rhetoric that has applied rhetorical methods to the study of science has tended toward a traditional or even neo-Aristotelian approach. Many of the seminal pieces of rhetoric of science scholarship tend to focus on Great Men of Science and their notebooks (e.g., J. A. Campbell, 1986; Gross, 1988; Reeves, 1992). This scholarship has mostly ignored both the critical turn in rhetoric and recent theoretical developments in STS. Indeed, many scholars within STS decry this approach for reasons shared by contemporary rhetoricians: that it tends to attribute agency only to individual rhetors; that it often ignores broader social, political, and global contexts; that it assumes a “hypodermic needle” model of communication and the spread of ideas and technologies; and that it ignores the way messages are taken up by intended and unintended audiences in a myriad of ways never conceived of by the rhetor. While the foundational scholarship in the rhetoric of science was important in demonstrating science’s rhetorical dimensions, it is time for this area of study to heed both the calls for a critical rhetoric as well as Collins and Evans’s (2002, 2007) call to move from the study of science in of itself to the study of its application as expertise.

This thesis hopes to answer both of those calls by employing a critical rhetorical method to studying the appropriation and deployment of specific definitions of expertise in online contexts. The present research has shown that critical rhetoric is aptly suited for the study of expert knowledge and technological artifacts such as websites. Rhetorical criticism in general has been moving toward analyzing communication technologies (see, for example, Cottle & Lester, 2011), and this thesis has been a move in that direction as well. The scholarship in both rhetoric and STS has begun overlapping in terms of objects of study and methodological perspectives, but without much conversation between the two. It is time these areas of study began a true scholarly conversation and ceased talking past each other. Future research, then, might continue in this vein, employing a critical rhetorical approach to the study of scientific knowledge and technological artifacts.

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