

Globalized Fatherhood

Marcia C. Inhorn, Wendy Chavkin, and José-Alberto Navarro, Editors

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Introduction—

Globalized Fatherhood:

Emergent Forms and Possibilities in the New Millennium

Marcia C. Inhorn, Wendy Chavkin, and José-Alberto Navarro

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Introduction

One of the key insights of 1970s second-wave Western feminism was that paternal participation in childrearing was necessary for gender equity (Chodorow 1999). Yet, even today, there persists a widely held (although largely untested) assumption in feminist, social science, population policy, and lay circles that men remain disinterested and disengaged in matters of human reproduction, childrearing, and the intimate domains of fatherhood and family life.

Is this true? Are men really so removed from the realms of reproduction and fatherhood? In *Reconceiving the Second Sex: Men, Masculinity, and Reproduction*, Marcia C. Inhorn and a group of Danish colleagues (Inhorn et al. 2009) challenge this assumption, drawing inspiration from Simone de Beauvoir's (1949 [2011]) classic feminist treatise, *The Second Sex*. Arguing that men have been relegated as "the second sex" in the scholarship on reproduction, Inhorn and colleagues issued a call to arms to bring men back into the reproductive imaginary as progenitors, partners, decision makers, lovers, nurturers, fathers, and sentient human beings. Men contribute not only their gametes to human procreation, but are often heavily involved and invested in most aspects of the reproductive process, from impregnation to parenting. Furthermore, men have their own reproductive issues and concerns, which may be connected to, but also separate from, women's reproductive health and wellbeing. Thus, men need to be

reconceived as reproductive in their own right, and men's reproductive "rights" need to be acknowledged along with women's.

The present volume is intended to further this first volume's aims by focusing attention on men *as fathers*. While a number of volumes—including Faye Ginsburg and Rayna Rapp's (1995) seminal volume, *Conceiving the New World Order: The Global Politics of Reproduction*, Barbara Ehrenreich and Arlie Hochschild's (2004) *Global Woman: Nannies, Maids, and Sex Workers in the New Economy*, and Wendy Chavkin and JanMaree Maher's (2010) more recent volume, *The Globalization of Motherhood: Deconstructions and Reconstructions of Biology and Care*—explore new versions and new vicissitudes of motherhood around the globe (including the ways in which mothers in the Global North depend upon the mother-care of women from the Global South), nothing comparable has ever been published about fatherhood in the era of globalization. Indeed, to our knowledge, this is the first volume devoted mainly to social science research on fatherhood outside of the West. It includes new work by anthropologists and sociologists on fatherhood in a wide variety of geographic locations, ranging from Peru to India to Vietnam. It also offers an entirely new conceptual vocabulary through which to understand men's experiences and expectations of fatherhood at the dawn of the twenty-first century.

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Fatherhood: The State of the Art

This is not to say that fatherhood and its global variations have been entirely absent from the scholarly imagination. In fact, the literature on fatherhood has been growing and evolving in recent decades, as we will describe. However, this research is neither diverse nor comprehensive, particularly when compared to the research on women as mothers and caretakers. Furthermore,

Paternity Poisoned: The Impact of Gulf War Syndrome on Fatherhood

Susie Kilshaw, University College London

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Introduction

During my research into Gulf War Syndrome (GWS), one Scottish veteran expressed concern about how the illness might impact his reproductive life. I asked him if he worried about having children. He replied:

Aye, but we can't have kids now, and I wonder is that is because of me. Before me [my wife] had a healthy pregnancy, no problems. And I had a child before [the war] who was perfectly healthy. [Kilshaw: Was there a concern when you tried to get pregnant?] Aye. Miscarried. We had fertility treatment. Sometimes it's a relief because one of my friends, his child was born with webbed feet and webbed hands, another was born with heart problems, and my friend, his kid's got behavioral problems.

GWS is a cluster of symptoms and illnesses affecting some of the soldiers and civilian workers who participated in the 1991 Gulf War. It is generally characterized by fatigue, headaches, muscle pain, joint pain, rashes, cognitive problems, diarrhea, and respiratory disorders, although I found that sufferers credited almost any symptom to the illness. GWS is attributed to reactions to prophylactic drugs and vaccines or exposure to pesticides and other chemicals, radiation, and oil fires). Elsewhere I explore the way masculinity is at the heart of GWS (Kilshaw 2006; 2007; 2009), but in this chapter I focus the intersection of GWS and one particular feature of the life of men: fatherhood. My encounter with this Scottish veteran reflects many Gulf war veterans'

concerns about having children. Masculinity is the social elaboration of the biological function of fatherhood (Connell 1995), and veterans often report difficulties in enacting this form of masculinity. Whether through experiences of difficulty in conceiving, concerns about having “damaged” children because of what they allude to and I characterize as “toxic semen,” or anxiety about the illness’s impact on their role as fathers, veterans express experiences of impeded and poisoned fatherhood. Bodily notions of toxicity expressed by veterans were extended to experiences of fatherhood. The construct of “toxic fatherhood” includes fears of contagion: that the sufferer will pass on the disability or illness to their offspring. This form of fatherhood can also be termed toxic as a result of the way the illness impacts family life as a whole.

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The Study

Data for this chapter is derived from my Ph.D. fieldwork among members of the U.K. and Canadian GWS communities. The project investigates the emergence of GWS and the way in which it became characterized by certain specific motifs. During a 14-month period I interviewed veterans and their advocates, as well as clinicians, scientists, and other participants in the GWS story. What sufferers had to say about their illness was the primary focus: a total of ninety-three interviews were conducted, sixty-seven of which were with U.K. Gulf veterans, the majority of whom believed themselves to be ill with GWS. Data were also collected from media files and other relevant documentation, including transcribed interviews with sufferers, family members, advocates, practitioners, scientists, and researchers. During this period I observed and interacted with those involved in the arena of GWS including clinical encounters and formal and

informal meetings. I relied on discussions with researchers and scientists to further explore the biomedical discourse surrounding GWS and the way this was negotiated by sufferers.

My research set out to provide an ethnography of GWS. During my research it became clear sufferers considered themselves to be poisoned by their exposure to chemicals during their service in the Gulf, including depleted uranium (DU), chemical weapons, and/or smoke from oil fires. Prior to and during the war a number of medical counter measures were used to protect troops from potential nuclear, biological, and chemical attack, and it is these prophylactic measures that have garnered the most attention as the possible cause of the condition. Such measures include multiple vaccines against biological warfare attacks, in addition to numerous additional routine vaccines: Nerve Agent Pre-treatment tablets (NAPS), containing pyridostigmine bromide (PB), given to protect against exposure to chemical weapons; and organophosphate (OPs), pesticides and insect repellents that were used to minimize pest borne disease. Veterans spoke about their bodies being penetrated or corrupted and, thus, irrevocably damaged. Sufferers often referred to immune systems in discussing of the illness. They see their body as being attacked, resulting in overwhelmed, vulnerable immune systems. They considered their body fluids as polluted, with blood and semen being particularly toxic. One of the unique aspects of GWS is that the veterans see it as contagious and able to be passed by sexual contact, reproduction, or living in close proximity with a sufferer.

Many sufferers maintain that they were experimented upon and blame the government for their illnesses. This can be seen as part of a larger trend of loss of confidence in authority. We find ourselves in a risk culture: the concept of risk is fundamental to the way lay actors and technical specialists organize the world (Giddens 1991). More and more social problems have begun to be examined through the prism of risk. Risk has become reflexive: humanity now has

to deal with new “manufactured” risks of its own creation (Beck 1992, Giddens 1991). This rings true in the case of Gulf War toxins, where the perils are manmade and emerge largely from one’s own side. Linked to this is an erosion of faith in science. The post-9/11 climate only reinforces what it means to live in a risk society where uncertainty prevails and the boundaries between friend/foe and civilian/military continue to erode. GWS risks can be seen as an example of Beck’s (1992) notion of circulation of bads: in a risk society dangers come from goods that are converted into bads. Similarly, Hochschild’s emotional aquifer¹ resonates here: human emotion is contagious. We all draw from an emotional aquifer that, unbeknown to us, connects us; when it is polluted by war or violence we all suffer.

Distinguishing something as a risk is a means of making sense of the world. Given the moral component of the causation of GWS, Mary Douglas’s (1966) work influences my reading of the condition, particularly her introduction of morality in understanding risk and danger and her focus on the differences in risk perception. When GWS began to appear and before an organized movement had developed, the sufferers, who were seeking meaning for their suffering were already focusing on the confusion of categories that previously defined friend and foe (Cohn et al. 2008). One of the main tropes in GWS discussion is the way the illness is a form of “friendly fire.” In the United States, the phrase “friendly fire” refers to inadvertent firing towards one’s own or otherwise friendly forces while attempting to engage enemy forces, particularly where this results in injury or death. Such incidents are more commonly referred to as “blue on blue” by NATO militaries. A consequence of all wars, friendly fire came to have significant meaning during the Gulf because it was:

reconfigured in the experience of the soldiers as a betrayal of the highly advanced technology of the conflict. Here, the inevitability of human error is reconfigured

in their accounts of what happened as a story about newly manufactured risk and the role of novel weaponry, areas of uncertainty during conflict, and the erosion of a soldier's traditional role. (1644)

Veterans commonly expanded upon the metaphor of friendly fire, often employing the U.S. terminology, to describe not only the way they see the illness as caused by their government, but also the way they believe it behave like an auto-immune disorder: the body turning on itself. Importantly, the metaphor was extended to represent the way the illness affected members of the victims' families through contagion and contamination. Moreover, friendly fire incidents not only provided a general metaphor, but a:

conceptual ground for those who came to suffer from GWS in that they had been wounded by the medical counter measures they received. The enormous moral and psychological requirements to make sense of illness, especially one that was unknown and unaccounted, were for many enough to overturn the division that normally provides a moral certainty about who the enemy is and where it is located. (1647)

When exploring GWS I am not asking the questions, "Is it real?" or "Does it exist?" which were often the focus of inquiries about my research. For the purpose of this analysis, the objective truth of whether or not this illness is indeed either "real" or psychosomatic is irrelevant; instead, I maintain that GWS is at the very least subjectively real in that veterans are suffering and they are convinced that they have been negatively affected, indeed, poisoned by their time in the Gulf and that their experience of fatherhood is influenced by it. Here I focus on the perception of the sufferers and in this case I am not intending to endorse nor refute the position of these beliefs in relation to mainstream scientific and epidemiological approaches; instead, I strive to transcend the conventional boundaries of modern biomedicine, which

establishes a dichotomy in respect to the nature of illness, contending that it must either be physical or psychological. In taking this approach, I am more effectively able to explore the way in which veterans subjectively experience GWS, particularly as it relates to their perceived ability to engage the role of fatherhood..

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Sexuality and GWS

Men, or, more specifically, military men, are the focus of my work on GWS. Only “recently have men as men—that is, as gendered agents, with beliefs, behaviors, and characteristics associated with but not dependent on biological sex—become subjects of theory and empirical investigation within the social sciences (Connell 1987; 1995; Seidler 1994), including in anthropology (Bourgois 1995; Gutmann 1997; Lancaster 1992)” (Dudgeon and Inhorn 2009: 80). The authors continue,

Although no single framework for the study of men holds, attempts have been made to explain general patterns in male identity and behavior. For example, the notion of masculinity has been used to refer to a differentiated set of roles and behaviors undertaken by men and involving ideas about self as they relate to these roles. Recently, theorists have stressed that individual men do not simply fill static roles and identities; rather, they must perform masculinity as an ongoing process drawing on existing sets of behaviors and ideas while allowing for innovation and change over time (Dudgeon and Inhorn 2009: 80).

Gilmore (1990) argues that masculine identities and roles are more tenuous than feminine identities and roles, thus they must be performed more vigorously. This is, in part, because

women can demonstrate their femininity through reproduction. Masculinity is not considered permanent and must be continually reconfirmed. This is particularly the case in military culture where both formal and informal performances of masculinity abound. Military culture creates structure and routines that call for continual testing of such qualities. For example, the U.S. Navy has been described as a “culture that chronically creates trials that separates the “weak” from the rest. From the first day of training, the culture creates a testing ground that creates boundaries of inclusion around those who exhibit strength, endurance and competence” (Barrett 1996: 131).

Masculinity is characterized as a plural set of gender identities or masculinities (Connell 1995) that are related to, but not determined, by biological sex. However, masculinity is almost always thought to proceed from men’s bodies, be inherent in a male body, or express something about a male body (Connell 1995). The phrase “hegemonic masculinity” is used to describe ideal types of male behavior. There is a hierarchy of masculine behavior and most societies encourage men to embody a dominant version of masculinity. Conversely, “subordinate masculinities” embody some of the opposites of these ideal attributes. The military plays a primary role in shaping images of both hegemonic and subordinate masculinity to the larger society (Connell 1992; Morgan 1994). Military masculinity emphasizes stamina, strength, and vigor and exerts pressure on soldiers to live up to these ideals. Notions of masculinity among the people I met focused on a physical form of masculinity comprised of fitness, strength, endurance, and muscle bulk. Soldiers are defined as an embodiment of male sex role behaviors (Barrett 1996). Models of hegemonic masculinity, or ideal masculine behavior and identity, may distress men unable to achieve these ideals. The sufferers I met aspired to, but ultimately fell short of, the ideal form of military masculinity: a hyper-masculinity. Illness in general may be characterized as unmasculine, and some disorders, such as infertility and erectile dysfunction, are seen as

particularly emasculating (Inhorn 2002; 2003; Webb and Daniluk 1999). Will H. Courtenay (2000) argues that there is a reciprocal relationship between masculinity and health, stressing that men's health problems are often produced by men's enactment of masculinity and that cultural norms and expectations reinforce these enactments (Dudgeon and Inhorn 2009: 83). In the case of military men, weakness and illness particularly are framed as unmasculine. These ailments contribute to GWS being constructed as a loss of masculinity or even a feminizing condition (Kilshaw 2009).

The experience of the Gulf War and of having GWS seems to touch on the very notion of what it means to be a man. Veterans and those around them focused on the loss of physical strength and vigor and described a state of eroded masculinity. They spoke about becoming weak, lacking fitness and muscle, and being old before their time and "like women." Distress was expressed through the illness, which included problems with reproduction and sexuality. This change can be seen as mirrored in the wider world in which they lived. As Lisa Moore (2009: 56) comments, there are "interesting parallels to consider between reports of the global declines in sperm production and global masculinity 'under threat.'" Concern about reproduction among GWS sufferers makes sense given the central place it holds in the demonstration of masculinity. If sufferers experience their illness as eroded masculinity, it is not surprising that they would see their biological function of masculinity as impeded. I have interpreted this as the expression of anxiety about gender and identity, particularly in light of a life and a military in flux (Kilshaw 2009).

GWS fatherhood is considered to be potentially toxic fatherhood: the most common symptoms of GWS are impotence and low libido, which makes the opportunity of conceiving a child less likely. But veterans also spoke about impediments to producing children and "ideal"

children in that they reported that their semen was toxic and damaged and that, as a result, fetal death and birth defects were likely. Narratives of GWS take an ambivalent approach to semen (Kilshaw 2007). Semen serves as a potent symbol of identity, and a focus on semen among GWS sufferers expresses an anxiety about identity, or, more specifically, about masculinity. When veterans discuss their damaged bodies and their damaged semen, they are communicating experiences of impaired masculinity.

Helene Goldberg (2009) and others illustrate the conceptual connection between impotency and infertility. However, with GWS, sufferers emphasize impotence and low libido but do not conflate this with infertility. Impotence and low libido are, however, conceptually linked and conflated. For example, sufferers and their partners sometimes suggest the need for Viagra to remedy low libido, when in fact Viagra is a treatment for impotence and not low libido. Militaries emphasize a hypersexuality, a trait central to masculinity. Cultural constructions of sexual behaviour and sexual disorders shape the ways individual men experience their own masculinity. Anthropologists have demonstrated that culture-bound syndromes such as semen depletion (Bottero 1991; Herdt 1997) or erectile dysfunction (Inhorn 2002; Potts 2000) depend not only on culturally specific understandings of human reproductive physiology, but also on a phallogocentric perspective on human sexuality that deemphasizes other forms of male sexual expression and pleasure (Dudgeon and Inhorn 2009: 84). With heterosexuality and a hypersexuality as a characteristic of military masculinity, one must question what is considered low libido in this context. It may be that veterans were interpreting their own sex drive as impaired in light of the discourse of hypersexual desire common in military circles.

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Infertility and GWS

Despite concern about reproduction and adverse outcomes of pregnancy following service in the Gulf War, there have been relatively few studies on the topic compared to the multitude of studies on Gulf War illness (Doyle et al. 2006). This is particularly surprising given the centrality of the concern for the people at the heart of my research. The research into a possible link between Gulf service and infertility is unclear mainly due to low response rates and the possibility of selective participation (Maconochie 2004). Three epidemiological studies (Ishoy et al. 2001; Maconochie et al. 2004; Sim et al. 2003) have specifically examined fertility in relation to Gulf War service in general. The first was an interview-based study that took blood samples to test reproductive markers. The second used a postal questionnaire to examine self-reported fertility status among Australian veterans. The final, largest study was a U.K. study (Maconochie et al. 2004), which used a self-administered postal questionnaire; but unlike other studies an attempt was made to verify and obtain more information on reported fertility problems.

Differential recall of infertility by the Gulf veterans or the comparison group is also a possibility, particularly as some evidence exists that miscarriage, particularly early miscarriage, is under-reported by male non-Gulf veterans in this dataset (Doyle et al. 2004). It is possible that “Gulf veterans had more incentive to report infertility if they perceived that it might be related to their Gulf war service” (Machonie 2004: 5). Doyle et al. (2006) analyses revealed little or no evidence of increased risk of infertility in relation to any specific exposure. The authors’ concerns about bias resonate with my findings: the way in which concerns about the Gulf War may impact on symptom perception and reporting.

Anxiety about the connection between war, virility, and reproduction exists throughout history (Bourke 1996; 1999; Showalter 1997), but in the case of GWS it has come to be associated with notions of purity and infection since early in the emergence of the condition (Cohn et al. 2008). Although concern about infertility is contained in the popular discourse of GWS, it was primarily a worry of Gulf War veterans who were not (or not yet) ill. Many well veterans expressed a fear that, although they were not suffering now, they may become ill in the future; infertility was a dominant concern. This perhaps relates to a more widespread apprehension about infertility in U.K. culture, tapping into cultural anxieties as evidenced in the media. With subsequent military deployment to Iraq more than ten years later, concerns about fertility and semen quality were of high enough interest to prompt some U.S. military men to cryo-preserve their sperm prior to deployment (Kelly 2003). In the United Kingdom *The Observer* reported:

Scores of British servicemen heading to the Gulf are visiting sperm banks so their partners can still have their children if they are killed or rendered infertile by chemical or biological weapons.... Veterans' groups say they have had many inquiries from servicemen concerned at the possible effects of vaccines administered by the Ministry of Defence, apart from the danger of being killed or rendered infertile during fighting. The cocktail of chemicals, similar to that given out before the first Gulf war in 1991, is meant to guard against insect bites and Iraqi chemical and biological weapons. The MoD insists it is safe, but some veterans say it has been linked to problems of fertility in soldiers returning from conflict. (Harris 2003)

The article links soldiers' concerns about fertility to other issues about GWS; we can see that infertility remains part of the public discourse. NAPS tablets were cited most commonly as the cause of low libido, infertility, and impotence, while vaccinations were also considered to be linked with these symptoms. Gulf veterans' concerns about particular exposures being linked specifically to fertility problems resonates with popular cultural beliefs. Indeed there is evidence revealing that exposure to pesticides, chemotherapy, and ulcer and blood pressure medications, as well as to alcohol, marijuana, and anabolic steroids has been demonstrated as lowering sperm counts (Moore 2009: 56). There is an ongoing debate in the fields of epidemiology, toxicology, and infertility regarding the increased rate of men's infertility, and men exposed to environmental and occupational toxins have reported consistently higher rates of infertility (Schrader, Turner, and Simon 1991; Whorton et al. 1977; Wyrobeck et al. 1983). Furthermore, scientific findings based on research from sixty-one studies indicate that lower sperm counts are prevalent in our global environment (Swan and Elkin 1999).

Moore (2009) demonstrates the ways popular accounts conflate male infertility with impotence, where low sperm count is conflated with a lack of reproductive potency. A headline from *The Independent* attests: "Why today's man is losing his virility," yet the article focuses only on falling sperm counts across Europe and North America (Gannon, Glover, and Abel 2004). However, these categories are not conflated in the minds of GWS sufferers. In fact, Gulf War veterans spoke a great deal about infertility, but GWS sufferers did not focus on this concern. Infertility seemed to be a projection upon the future, whereas sufferers were focused on the reality and the present presence of their illness. The sufferers I met were looking more to the past than to the future. Why is this? Is this an issue of age? Is it that the well veterans I met had not begun to attempt to father children? What is the absence of anxiety about infertility among

the GWS cohort saying? There seems to be an emphasis on loss of sexuality, loss of masculinity, and damaged reproduction, but not necessarily on a loss of reproduction. Instead, we again see this elaboration of toxicity to fatherhood, that the illness is impacting, but not impeding, fatherhood.

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Fetal Death and GWS

Part of my fieldwork was spent at the Gulf Veteran's Medical Assessment Programme at St. Thomas' Hospital, London. One day a veteran came in and described how his wife had experienced a miscarriage a few weeks previously. The consultant outlined his belief that this veteran's problems were not caused by, and that his longevity would not be affected by, the Gulf War. He then said that the veteran's wife should feel reassured that her recent miscarriage was not the result of his Gulf service. The veteran reported that he did feel reassured. Others, however, were not reassured by evidence and remain convinced of a link between fetal death and Gulf War exposures. One prominent sufferer said, "You've got many, many, many cases where wives and female veterans have actually lost children." There have been seven studies of fetal death in the offspring of Gulf veterans. None of these studies found an association between service in the Gulf and increased risk of stillbirth in pregnancies conceived after deployment (Doyle et al. 2006). Studies on miscarriage rates are more problematic, with conflicting findings. Two studies (Doyle et al. 2004; Kang et al. 2001) found statistically significant increases in miscarriage reported by male Gulf veterans as compared to a control group. For miscarriage, there is some evidence of small increased risks associated with service, but the role of bias is likely to be strong (Doyle et al. 2006), with the authors pointing to the unusually low rates

reported by non-Gulf War veterans. In both of these studies the miscarriage rates in comparison to the non-Gulf control group were unusually low, rather than the rates of the Gulf veteran's miscarriages being particularly high (2006).

One veteran, Ed, and his wife tried for a year to conceive, but unfortunately that pregnancy ended in a miscarriage. Ed said he felt there were strange and unusual circumstances surrounding the loss of the pregnancy. He explained that he was told that his sperm had attacked his wife's egg:

Yeah, it was the chromosomes; I had double the chromosomes. I mean I think you are supposed to have thirty-six or thirty-seven chromosomes for male, but I had seventy-something. I had double the chromosomes. And they were attacking the egg, the fetus; they were fighting each other. And they put it down to a, what's called a blighted ovum. Ummm and they, I mentioned the Gulf War because I was pretty upset because I was almost 100 percent sure that it was down to that.

Ed's story reflects a common theme of hostile sperm and is further elaborated in that he also reported that his wife suffered from burning semen syndrome. The sufferers I met strongly felt the toxins and chemicals to which they were exposed in the Gulf War had affected their bodies. Anxieties about toxic body fluids (particularly blood and semen) are associated with reproduction and fertility problems, "linking the notion of possessing a future hazard in body fluids with ideas of strength with masculinity, and with the fear that even if the illness doesn't surface in their own body, perhaps it does in someone more defenceless" (Cohn et al. 2008: 1644). They perceive that toxic fatherhood poisons their bodies and affects those around them. Furthermore, they see this effect as permanent: their bodies had been permanently altered and damaged, which could then affect those around them.

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Gulf Babies and GWS

Blame and guilt are central to veterans' discussions as they worry about infecting their partners or children. For those few veterans who have had ill or disabled children after the Gulf, there is a further desperate anxiety that they are to blame, passing on mutated genes. Many veterans both well and unwell expressed anxiety about transmitting the condition to their offspring. I asked Chris, a veteran, if he was concerned about having children, and he replied:

Um, yeah I was when I came back because you heard all these deformities and that... my wife said she wanted kids and I said no and she thought I had gone off her.... I tried to explain to her that this is what happened. You see on TV that children are born with one arm and one leg. They love them as much as their normal children, but I don't think I could have coped. We opted not to do nothing for about a year or so. When I was getting reviewed you wondered if there was something wrong, and they're not telling you.... If something did happen and we did lose a child would it be down to my wife. Would it be down to what I had? We just didn't know. The medical staff just really didn't want to know: they didn't want to advise you, they didn't want to help you out. You just basically had to go and speak to your friends, but you have to be very careful who you speak to.

He then explained his relief at having a healthy daughter. Although he continued to be worried about the possibility of having a "damaged" child, they did eventually have more children, mainly because he felt it was the only way to reassure his wife that there was nothing wrong with him and to prove his devotion to her. As they considered expanding their family, they

continued to speak to friends and relatives about their concerns, including a family member who was a nurse. She told them to go ahead with their plans as a scan would pick up any abnormalities and they could then decide to abort the pregnancy.

The possibility of having children with birth defects seems to be an overriding concern of well veterans. Thus, although they remain symptom-free and healthy, they fear that something remaining in their body could affect their children (Kilshaw 2009: 168). There is a sense that the illness may not have affected them, but that it may lie within the body and affect offspring. The invisibility of the condition is a common theme. Thus, there is the notion that the asymptomatic veteran may be a carrier, with potential offspring likely to be affected: the invisible illness made visible in one's children.

One officer I interviewed said that if he had a child in the future and if that child were born with problems, he would question whether the Gulf War was responsible. Until that point he was not concerned about the illness, however. James, another well veteran, pondered over the reality of GWS and said:

Whether it is GWS or something else, I don't know. I am fine. There possibly is something, but I am fine, but if I were to have a child who was born with birth defects then I would blame it on the Gulf. [*Kilshaw*: Why is that?] Because there is no family history of anything like that either on my side or my wife's. The Gulf is the only thing I could blame it on. I suppose it could just happen, but there is something that I have in my past that would explain it. It's like if I found out I was infertile. I know I was fertile because I got a girl pregnant, and she had an abortion. So if I found out I was infertile I would then investigate and come back to GWS and I think I would have the right to do so.

During a follow-up interview James said: “If I got cancer I would not blame it on the Gulf. It would have be something unusual; if I had a three-armed baby I would blame it on the Gulf. That’s not a normal birth defect... Or if I were told I was infertile....” We then spoke about different possible birth defects and, interestingly, it emerged that he had different explanatory models based on the perceived hierarchy of the seriousness of the condition. He would not blame a minor problem on exposures in the Gulf, but something he deemed more serious such as Down syndrome, he explained, would be attributable to the his participation in the Gulf War.

Josh, an officer who was “well” in that he was not suffering from GWS but had been injured during his service in the Gulf, expressed his concerns about having children:

It is a worry because you meet people at the [association’s annual meeting], some of who have three damaged kids. It puts me off. It has done. I have some friends who have had children who are fine, but you wonder. I definitely have the feeling that I’ve been contaminated. Toxic war. Ties into the contamination thing. I don’t feel I’m contaminating you by sitting here, but contaminating relationships... that their futures may not be as bright because of what I’ve been party to, what I’ve done, inhaled, injected with.... to do with reproduction etc. It clouds my future and progeny’s future. We’ve been exposed to so many chemicals. The chances of birth defects are vastly increased. It may not be noticeable in great scheme of thing, but for my family it’s bloody important. The government is losing hold on our bodies. Inhabit our bodies, but didn’t have a say. We are meant to be in charge of our own bodies. We weren’t in control of our own bodies. They will be able to genetically modify humans soon. My children might not be fit enough to survive because of what happened to me. Every chemical has an impact on our

cells either the way they reproduce or the nucleus...will change in your body....

The chemical we had: we are going to have defects. Whether or not they are passed down the line but probably are. Everything we taste, smell and touch might have effect on progeny because they are chemicals that we have put into our bodies. Impact of chemicals will only come out in hundreds of years.

Josh expressed his concern about having children and his belief that it is likely that the exposures in the Gulf will cause problems in any children he may conceive in the future. But he also spoke about contamination and toxicity that is both literal—veterans’ bodies are toxic and this can be passed on to loved ones—and more conceptual—experiences of war, the military, and the illness contaminate relationships and make them toxic.

This extension of the friendly fire metaphor was used in the case of birth defects, as Lee describes his family situation:

I was having mood swings, drinking. That progressed. My wife moved back to the UK with our daughter, who is eight. I had problems seeing my daughter. She has heart and lung problems. That was the main thing that got me on the Gulf War program, I signed on the dotted line. I’m big enough and ugly enough to handle it... but my daughter... that is like friendly fire and if I have another child.... I couldn’t handle a disabled child.

The illness is brought home and is seen to impact those it should not: the innocent members of the soldier’s family.

Kerry, the wife of a prominent sufferer and an advocate herself, spoke of her experience with birth defects in her daughter:

Emily had a birth defect when she was born, so Stan was guilt-ridden. I knew something was wrong, but mother's intuition was not good enough for the doctors. Stan blames it on the Gulf, but I know lots of children born with birth defects: I was born with a kidney defect; that's a birth defect too. I think it's genetic, a birth defect. I want him to think that, for my own sanity. I'm not going to drag my daughter through the courts. I don't want my daughter growing up as a Gulf baby. I want her to have a normal life.

Kerry's remarks reflect ambivalence around the cause of birth defects. Causation is often unclear and uncertain: was a birth defect caused by Gulf exposures or not? It is not only causation, but also the disabilities themselves, that remain uncertain. There is no consistent evidence of a strong association between Gulf War deployment of servicemen and the appearance of major, clearly defined, birth defects among infants conceived after the war (Doyle et al. 2004; 2006; Kang et al. 2001). However, despite these findings, birth defects are seen as a central fact of GWS, with veterans and advocates commonly reporting increased rates of birth defects among children of those who served in the Gulf War. It is important to note the difference between biomedicine, which may have clear markers of birth defects, and the interpretation of veterans and those around them, who see a range of conditions as "birth defects." The ambiguity of GWS birth defects further continues when one considers minor and more ambiguously defined birth defects, such as anomalies of the musculoskeletal system. For "such conditions there is an element of judgment and what one person considers a birth defect another might consider a normal variant of structure" (Doyle et al. 2006: 582). I witnessed this firsthand when I met with one family who was well-known in the GWS community for having a number of children with birth defects. This family was often used as an example of the link

between Gulf War exposures and birth defects. Although suffering from a range of symptoms and conditions, when I met with them the nature of their “defects” was unclear: I was uncertain whether they would be classified as birth defects by external observers. Men, families, and advocates were attributing a wide variety of difficulties with children to GWS exposure-related birth defects. One sufferer explains how his son’s birth defect was the result of his own GWS:

Through my genes? If it was transmitted in any other way, like a communicable disease, then it would have affected the others as well and my wife.... Are we carrying around these chemicals in our body and you know, are they still there? Are they going into every sort of facet of our body? Sperm has blood and everything in it and you’re carrying other chemicals around in your body, then that’s creating a chemical imbalance or something like that. Who knows what it could be doing?

GWS veterans believe that all they were exposed to in the Gulf is concentrated in their semen: it has become toxic and contaminated and this can then be passed on through sexual contact and reproduction. The combat zone is no longer a remote place; it returns in the bodies of soldiers who then contaminate others, such as innocent family members. Mark expressed concern about the health of his children:

His thumbnails fell off when he was little; he’s got asthma, but his mum’s got asthma, so I don’t know it might be from his mum. Their personality is the same. The other child might be mine. I would like to get DNA test or whatever it is to find out. My son, he broke his collarbone falling out of bed... all top teeth had to be taken out... as if there was something wrong with them. My son is hyperactive. The older one has fear, but the other two don’t. I think I’ve passed something on

to them, but I don't know. Wee lassy is constantly getting kidney infections. She was born only a couple of years after I came back [from the Gulf], so possibly it was stronger then, which is why she is worse. Whatever, maybe the inoculations stay in your system... maybe not as strong anymore. Doctors just put it down to nail rot, but I don't put it down to that. Why would my son get nail rot I want to know? I try to think of reasons for why it's gone tits up. The Gulf was right at the start of my army career. I moved around when in the army for fighting that's not like me.... I try to work it out... the only thing that is different in my body, that shouldn't have been in my body is these jabs. The reason why I don't go on about DU is because we not all got them.

Harry, a GWS sufferer who has a disabled son, outlined a number of key themes that emerge in GWS discussions of biological aspects of fatherhood as it pertains to the illness:

As I say, my son Thomas has got brain damage [seen on] an early CT scan and what's now on, what's now I'm thinking I may have passed it on genetically from the way I am. So that's the next thing we will be looking at is having a chromosome test for me and my son to see if there is any link. I mean, my daughter Jade's OK and it's the male that passes it on to the son. So I think we just want to find out if there is a connection and if there is anything that can be done to improve his quality of life.... Thomas is a Gulf war baby he was conceived, you know, not long after the Gulf war, you know. And he was a boy. A lot of other veterans who have children with the same problem they are all boys. So that's why the question is because they did actually did pass on via the cells the father's like.

I then asked Harry how it would be that only male offspring were affected, and he replied: “The theory is that it’s the X gene in the chromosome through the male. That gets passed down to the boys. I don’t know the scientific. It’s something to do with the genetic build up, like.”

Both Mark and Harry suggest that children born soon after the war were at greater risk than those born at a chronological distance from the war. Some veterans see their bodies as more hazardous soon after the war, with the possibility of contamination wearing off with time. Yet this theory also suggests that the illness becomes concentrated in maleness. Men pass on the illness to their male children.

During my fieldwork families would commonly refer to an affected child born to a veteran after Gulf service as a “Gulf baby.” Thus the children become labelled: their identities are linked to their fathers’ service and subsequent illness. Gulf babies are considered to be the most at-risk because toxicity is contained in the body of their GWS sufferer parent. Children become a way to legitimize the illness of the parent. Harry refers to his son as a “Gulf baby”: he is ill and defined by his father’s participation in the Gulf. Interestingly, Kerry clearly states that she does not want her daughter to be considered a Gulf baby. Instead she wants to emphasize the genetic nature of the condition, something which she feels has nothing to do with her husband’s Gulf service. She feels that if the baby were so labelled, she would be forced to play a role in the legal case and would not have a normal life. However, for others, emphasizing the child’s identity as a “Gulf baby” is part of being a good father. This may be tied to claiming an identity for the child as being the offspring of someone who fought for the country and therefore worthy of state and medical support. Emphasizing the child’s identity in this way may help to define these advocates as fathers: seeking help and protection for their child. It also uniquely binds the child to the man and emphasizes the physicality of paternity.

Gulf veterans are not merely concerned with potential birth defects in regards to their children; they also see their children as more at-risk, generally. Veterans often told me that they feared that, as a result of their Gulf service, their children suffered from diminished immune systems and, as a result, were more susceptible to environmental hazards. So, for example, veterans sometime suggested their own children were more vulnerable to immunizations and injections. GWS is seen as contagious and so all children and those living in close proximity are considered to be at risk. Children can also be affected in other ways: such was the case when two veterans reported that their children had become unwell as the result of souvenirs of war in the family home. The suggestion here is the toxins, likely DU, had infected the house by way of these objects.

In GWS narratives, DU is the exposure most often cited as linked to reproductive problems and is conceptually and lexically linked with radiation and the Chernobyl nuclear accident of 1986. Adriana Petryna's (2002) work exploring how Ukrainians become biological citizens, forgoing other identities in order to get treatment for the effects of Chernobyl, is similar to the way GWS sufferers produce an identity around the illness. However, for UK veterans there is a difference in that, because of the National Health Service, it is not a battle for care and treatment, but one for recognition. Importantly, just as the people at the center of Petryna's work fought for ties to Chernobyl for their children in order to assert claims to benefits and care, so are veterans negotiating identities for their children linked to the illness. Being a good father means providing and protecting and, in some cases, this is seen in a father's battle to have his child labelled as a Gulf baby or affected by his exposure to Gulf toxins.

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Fatherhood and GWS

It is well-documented that aspects of military lifestyle, especially separations caused by deployments, can have a negative impact on the personal relationships of military personnel (Barker and Berry 2009; Barnes et al. 2007; Gorman et al. 2010). Studies report higher levels of stress and more emotional and behavioral difficulties in military adolescents and their at-home caregivers compared to national samples and children of non-deployed parents (Barker and Berry 2009; Barnes et al. 2007; Chandra et al. 2009; Gorman et al. 2010).² Older children who had a father return from the Gulf War faced the usual stressors: dealing with the absence of a parent, disruption to family roles and responsibilities, the reintegration of the parent into the family structure, and the return of a wounded or ill parent. Sufferers are overwhelmingly ex-military who left service soon after the war. The children at the heart of GWS were born primarily after the war. Thus, the impact of military life on the child is not the primary concern. Instead children experience the difficulties soldiers face when leaving the forces; here, it is the social impact of being a child of an ex-soldier and an ill father that is of central importance.

Parents are concerned about the social and psychological impact on the children being raised in toxic environments, resulting from the illness. The environment might be toxic as the result of objects of war in the house, but also as the result of moods and the atmosphere created by the sufferer. Kerry said her husband's behavior made her feel guilty; she felt bad for its affect on their children: "I know these things happen in other families, but this is different. The kids shouldn't have to get used to it. He snaps at the kids all the time." This comment reflects another common theme in GWS narratives: that the illness makes the father irritable and snappy. Children are often chastised by grumpy fathers. One of Ryan's main concerns was the affect of his illness on his children:

Because my lifestyle isn't as it should be, not as jolly as it should be. I'm bringing up my children the way I am. They are growing up with anger and no motivation. Whether its PTSD or nerve agent we heard about whatever it is I have to blame the army. They put me in a position that I couldn't refuse. I was made like I am and passed on to children and wife... oldest son going through what I'm going through. Very angry. There is something missing.

His wife adds:

[Our daughter] stands out like a sore thumb. All her friends are gently. She and her brother go in fists first.... I have to say, "please don't be like your dad." She is getting angrier as she gets older. She says she's stressed up. Says, "You are stressing me out." [Our son] wants to know why we don't work.

Sufferers often told me that their children had difficulty in their social lives. Children were labeled and seen as different. They stood out because of their father's illness. One family who has a son with behavioral problems and dyslexia, which they felt was due to GWS, said: "Our son doesn't have many friends. He was having a hard time at school because the other kids say they are scared they will catch something from him." Children of Gulf War veterans are seen as potentially contagious and so are ostracized by their peers. Some children were teased for having a sick father. This same family also reported that their son was told by a classmate that the classmate's father had said the father did not need a walking stick, that he was not as ill as it seemed.

One of my first fieldwork experiences was meeting with two veterans who had come to London to take part in the Armistice Day activities. As we spoke, they drank whiskey and told me about the Gulf War and its impact on soldier's lives: "A squaddie can recognize a problem

with a squaddie.... It is important to understand that you aren't alone out there. Guys from the Gulf are suffering on their own. Like coming out." I commented to them that this was an interesting use of the term, since "coming out [of the closet]" was a phrase commonly used to describe the process when a gay man or woman publically discloses his or her sexual orientation or gender identity. One replied, "I know, and it *is* like that. Men, it's a cultural thing that you don't show your emotions. They are supposed to be the breadwinner and the father figure. These things are taken away from them because they are ill." Sufferers and their partners often spoke of the detrimental impact of the illness on family life. The illness prevents them from performing certain activities and functions of hegemonic masculinity related to fatherhood. A dominant version of masculinity of fatherhood expects the father to be the "breadwinner," to serve as a strong, healthy, hardworking role model who protects his children from harm. I was told that soldiers returning from the Gulf War faced problems in returning to work. This comment refers to Territorial Army (TA) soldiers, who are overrepresented among those suffering from the illness and, thus, are of the concern of the association (which is run primarily by ex-TA veterans). The TA is the spare volunteer force of the British Army; it forms a quarter of the army's overall manpower. Although TA soldiers are supposed to have their jobs left open for them, many reported difficulty in the form of hostility from co-workers: "People come back, and their jobs aren't there for them. When they are, the co-workers are angry because you haven't kept up."

Others, who had been "regulars," often left the military soon after the war and also found it difficult to find work. Most of the sufferers I met did not have jobs and explained that the illness rendered them unable to work. Their fatigue was often the main reason they found themselves incapable of fulfilling the role as provider and breadwinner. As one veteran said:

I know I can't cope with a job. I have to be able to leave when I want to leave. I stopped working in 1994 when I got out of the army. I was not physically or mentally up to it.... I know I can't work, but I get a guilt trip... if I did get a job I'd be worse off. I get a nice enough allowance. It would have to be a really good job.... It frightens me to get on a train, long distances in the car makes me feel vulnerable.... I worry about panic attack and as you know it is the second thing to a heart attack.

In the place of an income, this veteran receives an incapacity benefit, a disability living allowance, and a war pension. Many of the sufferers I met receive some form of benefit from the state, usually in the form of a war pension.

Many sufferers described lives dominated by their fatigue, illness, and inability to participate in family activities. Some explained that their children questioned why they did not work like other fathers. As Harry explains, "It's role reversal at home. My wife works now and I'm doing the chores and that takes some getting used to.... I'm a househusband and that. You have to know your limitations. And I know my limitations. I can't do DIY and that.... I have to admit I felt a bit inadequate."

Often the wife works, leaving the sufferer at home, but the sufferer is often largely unable to perform typical homemaker duties. Harry reports that he is now unable to do "DIY" (Do-it-yourself): repairs, modifications, or building works that are largely done by the man of the house and are seen as a masculine pursuit in the United Kingdom. One primary trait of fatherhood centers on providing for one's family, yet many sufferers I met said they could not and would not work again, thus rendering absent the role of "provider."

Many sufferers said that they could not play with their children, that GWS prevented them from “running around” or “kicking a football” with their children. It was often the physicality of fatherhood that was central and deemed missing because of the effects of the illness. Kerry, introduced above, described her husband as selfish: “He won’t go near sand, so he won’t go near a beach. I hate him for that because kids can’t go on a beach. He can’t play football with our son. He has been cut down in his prime. But he’s had it for ten years, so you would think he would get used to it.”

The performance of fatherhood is often described through participation in particular activities. Among my peer group in the United Kingdom, many men wish for sons. Men express a desire to have a son to “kick a football with” and share an interest in sport and other “masculine” hobbies. I am often surprised by how rigid notions of gender are among certain British men. Thus, it is not surprising that GWS sufferers focus on their inability to play and be active with their children and that this seems to be more acute with sons. Indeed, this notion of damaged fatherhood was particularly emphasized in the relationship between fathers and sons, which parallels the theory of contagion described above.

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Conclusion

Each modern war produces its own post-combat syndrome, and while different wars share similar features, each ensuing malady bears unique characteristics. Although I focus on Gulf War veterans, my research is timely given that the United Kingdom, Canada, and the United States, among other states, continue to engage in military campaigns likely to produce veterans who harbor a variety of illnesses and conditions. Soldiers continue to return home, many

affected by their time in combat zones. We continue to have an epidemic of wounded warriors. However, so far evidence does not support an “Iraq war syndrome” despite the use of OPs, NAPS, and DU (Cohn et al. 2008; Horn et al. 2006; Wessely et al. 2009). The Gulf veterans I met sometimes referred to Iraqi birth defects, suggesting a link between the condition and adverse exposure, largely to DU munitions. In recent years there has been significant international concern, which has been generated over reports from medical staff in cities such as Fallujah and Baghdad of spiralling rates of congenital birth defects. Fallujah is particularly notorious, and medical staff and civil society organizations argue that the increases are linked to environmental contamination from the U.S.-led attacks on the city in 2004. The World Health Organization and the Iraqi Ministry to Health have now launched an assessment of congenital birth defects. We await the findings of this research, which will hopefully indicate whether there is a rise in birth defects and, if so, whether DU is the likely cause or whether other factors play a role. We must remember, for example, that there is an ongoing concern in Iraq and the rest of the Gulf region about the relationship between consanguinity and reproductive problems, so we await robust findings to help make sense of the situation.

Participation in the military impacts families and family life in numerous ways, but in the case of Gulf War veterans this assumes an added dimension: fatherhood itself is considered to be potentially toxic. The ability of these veterans to become fathers is seen to be impaired by their service in the Gulf and the substances to which they were exposed. They believe that Gulf service has altered them permanently: they see their bodies as weakened, ill, and toxic and that this toxicity can then be passed on to children. If they are able to conceive, these veterans fear their children will be born with birth defects as the result of Gulf War exposures. But GWS impacts fatherhood in other ways: children are being raised in toxic environments where they are

physically and psychologically impacted by the war's residue. Their bodies, home environments, and social worlds all may be affected by their fathers' service in the Gulf War. GWS fathers are unable to enact key roles of fatherhood, including serving as the family's breadwinner and playing with their children. Their irritability and frustration creates a toxic home environment. Furthermore, it is not only the illness that impacts on the family, but also the fight for its recognition by society. The veterans continually had to prove their illness, and this continuous enactment becomes a source of suffering. This fight for recognition means they must constantly performing the sick role. GWS affects the very core of masculinity and one of the main elaborations of this is damaged and toxic fatherhood.

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Notes

1. I am grateful to Scott North for alerting me to this concept.
2. Most studies, such as the ongoing large scale study by the King's Center for Military Health Research, focus on the cycle of separation and reintegration that is a key feature of current deployments. However the case of GWS sufferers differs dramatically in that many affected soldiers served in the Territorial Army and, therefore, had not experienced the cycle of deployments that now attract our focus. For a full discussion of the nature of deployment and the role of the TA, see Kilshaw (2009).

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Globalized Fatherhood

List of Contributors

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Susan Greenhalgh is Professor of Anthropology at Harvard University. An expert on the politics of reproduction, population, and life itself in China, she is author of *Just One Child: Science and Policy in Deng's China* (2008) and *Cultivating Global Citizens: Population in the*

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Marcia C. Inhorn is the William K. Lanman, Jr. Professor of Anthropology and International Affairs at Yale University. A specialist on Middle Eastern gender and health issues, Inhorn has conducted research on the social impact of infertility and assisted reproductive technologies in Egypt, Lebanon, the United Arab Emirates, and Arab America over the past twenty years. She is (co)editor of eight volumes and author of four books on the subject, including *The New Arab*

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Susie Kilshaw's work focuses on new illnesses, post-combat illnesses, health anxieties, and the impact of new medical technologies. An honorary research fellow at the Department of Anthropology, University College London in London, Kilshaw presently lives in Qatar where she is conducting research on a number of projects. Current research includes an investigation into health anxieties, particularly amongst ex-patriot mothers in Qatar. She was recently awarded funding from the Qatar Foundation to investigate popular understandings of genetic risk and social implications of genetic knowledge in Qatar. Genetic disorders are particularly significant in the Gulf Region and the Middle East because of marriage among close relatives, which is a risk factor for genetic disorders. By focusing upon those who are most affected by genetic discourse—those who have a family member with a genetic disorder—she will look at the cultural context for the specific interface between consanguinity and genetic risk. Prior to her move to the Middle East, Kilshaw was a teaching fellow in Medical Anthropology and Applied

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Vu Thi Thao recently received her Ph.D. in Human Geography from University of Copenhagen, Denmark. She graduated with a B.A. Economics from National Economics University, Vietnam, in 2002. After two years as a researcher at Center for Agricultural Research and Ecological Studies in Vietnam, Thao was awarded a fellowship from the Ford Foundation for pursuing her

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