

**Impotent Warriors: The emergence, construction
and moulding of Gulf War Syndrome**

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ABSTRACT

From September 1990 to June 1991, the UK deployed 53,462 military personnel in the Gulf War. After the end of the conflict anecdotal reports of various disorders affecting troops who fought in the Gulf began to surface. This mysterious illness was given the name “Gulf War Syndrome” (GWS). This thesis is an investigation into this recently emergent illness. It sets out to describe and report the way in which the illness has emerged and become characterized by specific motifs. The symbolic wealth of GWS is that it is about much more than itself and this thesis explores the way GWS has become a potent symbol and a way to talk about a plethora of issues, anxieties and concerns. The various metaphors and themes contained in narratives of GWS are explored in order to better understand the condition. At present, the debate about GWS is polarized along two lines: there are those who think it is a unique, organic condition caused by Gulf War toxins and those who argue it is likely a psychological condition that can be seen as part of a larger group of illnesses. Although necessary to contextualize GWS through situating it amongst other emergent illnesses and widespread health beliefs, there is a need to bring back the particular. This thesis seeks to make sense of the cultural circumstances, specific and general, which gave rise to the illness. Narratives of sufferers and those around them are examined to unravel the way the illness is a unique expression and way of making sense of the life-worlds of a particular group of people. The methods and perspective of anthropology, with its focus on nuances and subtleties, are used to provide a new approach to understanding GWS.

Table of Contents

<i>List of Tables and Illustrations</i>	6
<i>Acknowledgements</i>	7
<i>List of Abbreviations</i>	9
PREFACE	15
CHAPTER 1	
GULF WAR SYNDROME	18
The aim of the thesis	
Methods	
The role of the media	
The GWS debate: Physical or psychological?	
Anthropological approach	
Interpreting somatic symptoms	
On new and contested illnesses	
Ethical issues	
PART 1	44
GWS EXPLANATORY MODELS	
CHAPTER 2	
‘DESERT RATS NOT LAB RATS’	45
Introduction	
Biomedical view of GWS	
A veteran’s view	
Discussion of GWS causes	
Denial of psychological factors	
Vaccines	
NAPS (Nerve Agent Pre-Treatment Sets) Tablets	
Organophosphates	
Chemical Weapons	
Depleted Uranium	
Smoke from oil well fires	
Cocktail effect	
Unlicensed and untested: “One big experiment”	
Risk	
Conclusions	
CHAPTER 3	
CHAINS OF CAUSATION; CHAINS OF KNOWLEDGE	73
Introduction	
Contested knowledge	
Levels of causation	
Meta-narrative	
Conclusions	

CHAPTER 4	
LEAKY BODIES	90
Introduction	
Body substances	
Skin	
Internal Surfaces	
Bones	
Faeces	
Urine	
Blood	
Body substances as commodity	
Visibility	
Shifting boundaries	
Extended boundaries	
Leaky bodies	
Blood/ Brain barrier	
Internal risks	
Conclusions	
CHAPTER 5	
“WE ARE THE ENEMY”	122
Boundaries and borders	
Theories of causation and the immune system	
On Standby	
The immune system as arbitrator of the psychological	
Vaccinations	
Overload	
Self versus Non self	
Military metaphors	
Friendly fire	
Conclusions	
PART II GWS AS UNIQUE ILLNESS	156
CHAPTER 6	
VETERANS’ ASSOCIATIONS	157
The construction of GWS narratives	
The creation of a post-war identity and community	
Producing a self; creating a story	
The role of women	
‘My Man just isn’t the same’	
‘You aren’t mad- it’s chemical’	
Conclusions	

CHAPTER 7
THE DISAPPEARING MAN: NARRATIVES OF
LOST MASCULINITY **191**

Semen

- Infertility
- Low libido/ impotence
- Burning Semen Syndrome
- Women contaminated through men
- Birth defects: children contaminated through men

The soldier's body: The embodiment of masculinity

GWS bodies: The disappearance of masculinity

"Old women's diseases"

Women

Conclusions

CHAPTER 8
IMPOTENT WARRIORS: THE CONTEXT OF
NARRATIVES OF LOST MASCULINITY **226**

Military masculinity

Masculinity under threat

Did they fight or didn't they?

Gender anxiety

Leaving the military

The military context

Post combat syndromes

Conclusions: Embodying male lack

CHAPTER 9
CONCLUSION: GWS AND WORLD TRADE
CENTRE SYNDROME **255**

GWS an illness of our time?

Health Scares: from MMR to Post-nuptial Syndrome

Risk and vulnerability

Health and risk

GWS and Functional Somatic Syndromes

The medicalization of life

The approach of anthropology

Anthropology and somatization

Conclusions

Appendices 272

Bibliography 293

LIST OF TABLES AND ILLUSTRATIONS

Tables

Table 1: The Gulf War debate	31
Table 2: War syndromes	251

Figures

Figure 1: Sufferers' service arm during Gulf War	238
Figure 2: Non-combat roles of GWS sufferers during Gulf War	238
Figure 3: Jobs of GWS sufferers in support service	239
Figure 4: Informants' Branch of Service	275
Figure 5: Military Status of sufferer informants	276

Illustrations

Headlines of GWS	25
A soldier is vaccinated in preparation for the Gulf	44
Oil well fires in the Gulf	63
A soldier is vaccinated in the Gulf	140
Headlines of GWS: Contagion	199
Headlines of GWS: Contagion	200
An American GWS baby with his Gulf veteran father	204
Soldiers wearing gas masks	234

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LIST OF ABBREVIATIONS

AGM Annual General Meeting and Respite Week

The yearly meeting of the NGVFA where members meet to socialize and to learn about and share information about the GWS and the illness movement.

BATS Biological Agent Treatment Set

Preventative medication issued in the event of an attack by a biological weapon. Although it has been widely stated that no UK troops took BATS, a few veterans claim to have taken them.

BFT Basic Fitness Test

Physical fitness is a major aspect of military life and is constantly assessed. This test is the fundamental measure of fitness and must be passed by all recruits before they are accepted into the forces. All soldiers must also pass this test yearly. The test is designed to test aerobic power and muscular endurance. It comprises a 1.5 mile run, press ups and sit ups, all against the clock.

BSS Burning Semen Syndrome

The name given to the experience reported by some veterans and their wives where their semen is described as burning (causing rash) the woman when it comes in contact with her skin.

CFS Chronic Fatigue Syndrome

A chronic disorder of unknown cause characterized by fatigue, pain and cognitive disorders. Debilitating fatigue is the main symptoms and the cause remains unknown.

DoD The US Department of Defence

FM Fibromyalgia

A systemic condition of generalized pain, often with other associated symptoms, such as sleep disturbance, irritable bowel syndrome, and chronic fatigue. The tender point is the

characteristic physical finding. Veterans often use this term to describe joint and muscle pain.

FSS Functional Somatic Syndromes

An illness that cannot be identified by physical signs; whose scientific status and medical basis remain unclear. This group of illnesses include: ME/CFS, total allergy syndrome, MCS, food hypersensitivity, GWS, fibromyalgia, and sick building syndrome.

GVA Gulf Veterans' Association

The Gulf Veteran's Association (GVA) is the official arm of the RBL that deals specifically with veterans of the Gulf War. This status means they are officially recognized by the RBL and as a result of this connection are more highly regarded than other groups.

GVIU Gulf Veterans' Illnesses Unit

Section of the Ministry of Defence that focuses on issues related to the health of Gulf War veterans.

GVMAP or MAP Gulf Veterans' Medical Assessment Programme

Part of St. Thomas' Hospital, London; the GVMAP was established in 1993 by the MoD in response to the non-specific symptoms popularly termed GWS in order to respond to veterans' health complaints. Any Gulf veteran is entitled to attend and upon attendance would be interviewed about exposures, health concerns and any other relevant issues. They would be subjected to a full physical by one of the two clinicians and given a battery of tests (see Appendix Seven).

GVRU Gulf Veterans' Research Unit, King's College Hospital

Research unit headed by Simon Wessely and Anthony David. Undertook largest epidemiological study of health of Gulf Veterans and compared them with the health of those who served in Bosnia and those who served in the forces at the same time as the Gulf War, but were not deployed there (the Era cohort).

GWI Gulf War Related Illness

The term used in the medical literature to refer to illnesses linked to service in the Gulf. The medical establishment does not accept the existence of “Gulf War Syndrome” in that calling it a syndrome implies a unique grouping of symptoms. It is well recognised there are a number of Gulf related illnesses. For example, if a patient develops asthma, either during or within 6 months of returning from the Gulf, who has never had asthma previously, nor has any family history of same, then it is fair to say that is Gulf related.

GWS Gulf War Syndrome.

The term Gulf War Syndrome has been used to describe illnesses and symptoms experienced by veterans of the 1991 Gulf War. It is the popular term used and veterans insist on using it as it reflects their belief that their illness is a unique organic condition caused by Gulf War exposures.

IBS Irritable Bowel Syndrome

An illness label characterized by recurrent abdominal pain and diarrhea, sometimes alternating with periods of constipation.

MCS Multiple Chemical Sensitivity

An illness label described as multi-system illnesses as a result of contact with, or proximity to, a variety of substances. Sufferers often report a sensitivity to chemicals and other substances.

ME Myalgic encephalomyelitis

The name given to an epidemic which occurred among the staff of the Royal Free Hospital in London in 1955. The conclusion was that the illness- headache, malaise, dizziness, nausea and limb pain- was caused by a virus. This name has continued to be used for post-viral fatigue and is another term, more popular in the UK, for CFS.

MoD Ministry of Defence

MUPS Medically unexplained physical symptoms

Symptoms reported by a patient that cannot be linked to an organic cause.

NAPS Nerve Agent Pre-Treatment Tablets.

The drugs issued to troops as protection against organophosphate-based nerve agents. Also known by the active ingredient in NAPS: Pyridostigmine bromide (PB).

NBC Suit Nuclear, Biological and Chemical Suit

The full-body suits which were to protect against possible nuclear, biological or chemical attacks. The suits were donned often due to the perceived threat. Also called a “Noddy suit”.

NCO Non-commissioned officer

Military ranks above Private, but below Lieutenant. An enlisted member of the armed forces appointed to a rank conferring leadership over other enlisted personnel, but who is not an officer. They are the junior management of the military. In the British Armed Forces, NCOs are divided into two categories: Junior NCOs (Lance corporals, corporals and lance sergeants) and Senior NCOs (sergeants, staff sergeants, and colour sergeants).

NGVFA National Gulf Veterans and Families Association

The other main Gulf veterans’ association in the UK; it is seen as more controversial than the others.

Non-deployed veteran

A veteran who was serving at the time of the Gulf War, but was not sent to the Gulf. Some of these veterans claim to have GWS, believing that they were made ill because of contact with Gulf War exposures. Some say they were inoculated in preparation for war and others suggest they came in contact with substances like Depleted Uranium when they worked on returning machinery.

OPs Organophosphates

These are a family of chemicals that affect nerve signal transmission by a molecule called N-acetylcholine, which operates throughout the nervous system in many species. OPs have toxic effects due to their capacity to bind to and inhibit the enzyme acetylcholinesterase (ACE). OPs that block insect ACEs but have less effect in humans are used in pesticides. Those that affect humans have been developed as nerve gasses.

Options for Change

The move to downsize the military which occurred soon after the Gulf War. This course of action involved redundancies and contracting some duties out to civilians.

PB Pyridostigmine bromide

The active ingredient in NAPS. A drug that acts on the nervous system, it has been routinely used to treat *myasthenia gravis*, a disease of nerve/ muscle junctions.

PTI Physical Training Instructor

Individuals in the military whose role is to train soldiers in physical exercise and fitness.

PTSD Post-Traumatic Stress Disorder

Often confused with GWS, but a different condition. A psychiatric condition codified in DSM-III in 1980 which is thought to be the product of indelible traumatic memory. Includes symptoms such as flashbacks, difficulty in sleeping, nightmares, hypervigilance, avoidance phenomena, memory problems, concentration difficulties.

RAMC Royal Army Medical Corps

The regiment, part of the larger Army Medical Services, whose role is to promote effective medical services for the Army. Part of its role is to contribute to the fighting strength of the Army. They are responsible for the evacuation and treatment of the sick and wounded in war.

RBL Royal British Legion

The largest and best known veterans' association. Although they have been involved in the GWS discussion, they do not specifically focus on the illness. The RBL maintains an interest GWS and hosts quarterly meetings and have established links with the GVA, with the organization becoming an official arm of the RBL. 'The RBL Gulf Group Meeting' brings together veterans, scientists, doctors, MPs and advocates. During my fieldwork the RBL also organized and hosted a two-day US Congressional meeting at the House of Lords to discuss GWS and raise the profile of the illness.

Squaddie

UK slang for a low-ranking soldier.

TA Territorial Army

The Territorial Army is a part-time volunteer reserve force. These soldiers often have other careers and are required to commit to 30 days: usually one evening a week, one weekend a month and two weeks a year.

PREFACE

‘So, does it exist?’ This question is branded in my mind. It was this question which was asked of me almost everyday, sometimes a number of times a day. It usually followed the innocent question of what do I do or what was I studying. Strangers, acquaintances, friends, colleagues, professors, doctors amongst others posed it. Most often I was not surprised by the desire to get to the bottom of this conundrum, but I was frustrated when anthropologists responded to a description of my work with ‘So, does it exist?’

It became clear very early into my work that people were not only interested in the subject and intrigued by the mystery; but also that most people had an opinion about Gulf War Syndrome (GWS). Doctors, academics, my landlord, my friends; everywhere I turned, people had something to say about this subject. People were impassioned by GWS and were vexed by it. It became clear that a lot of people have an investment in this subject and the themes which feed into and are reflected by it. The passionate discussions in which I found myself revealed such investments. Defined in certain ways, doctors have an investment in GWS. Not only Gulf veterans, but other military personnel past and present have an investment in GWS and what it says about responsibility, pensions etc. This is particularly relevant in light of the recent war in Iraq and the soldiers who fought there- who were given the same vaccines, and fought in a comparable environment. GWS is relevant to Beth, a friend and Navy pilot, who prior to being deployed to Iraq last year was unsure about whether or not to accept the anthrax vaccination. But discussion of GWS incited the passions of people who, at first glance, one would not expect to have a stake in it. GWS is symbolically very juicy. It is a “hot” topic of which the majority of people have a political view. The symbolic wealth of GWS is that it is *about* much more than itself.

People’s assumptions made it clear just how widespread the belief in the dark and mysterious forces of the Ministry of Defence (MoD) are. Assertions in the malevolent role of government and, often, the medical services are rife. Veterans’ claims of a government cover up and conspiracy led by the MoD were readily accepted by many of the members of the public I came across. Fellow anthropologists were not immune from

biases such as these. Colleagues seemed to throw out the suspension of belief and rigorous questioning when it came to my subject. They seemed, in some ways, locked in the assumptions of their cultural process: one that generally sees powerful and large institutions as dangerous.

In the UK in 2004 there is a widespread mistrust of government and science. The effects of the Mad Cow scare and the way in which the government and various agencies handled it are still being felt. The public is concerned or, sometimes, down right scared, and they do not necessarily trust those in power to tell them the truth or do what is in their best interest. The debate about MMR rages on- parents are scared that the MMR jab given to their children may cause autism, and regardless of scientific findings which say they are safe are demanding single vaccinations. As I write this, a passionate struggle is occurring in the public sector as concerned individuals fight to stop GM Foods. Science and scientist are no longer believed. Scientists themselves are seen as the purveyors of anxiety and risk. Science seems uncertain: you can always find one study to support or dismiss a claim to truth. With this decline in the authority of science comes the decreased authority of doctors. Individuals now are more likely to question and mistrust their doctors. They diagnose themselves, often with the help of a media story, the Internet and/ or friends. We feel vulnerable and this is felt bodily. Our immune systems, the key to our health and well-being, are being constantly challenged by the increasingly toxic world. It is in this climate that GWS emerged and is being constructed. A story about soldiers becoming ill, their immune systems damaged, as the result of vaccines or toxins administered by a guilty government makes sense in such an atmosphere.

Now in the new climate of terrorism, biological weapons, Anthrax scares and the second war in Iraq discussions of GWS continue and take on new meanings. GWS is about much more than itself and, so, it is a way to talk about other cultural fears, anxieties and experiences. On one popular GWS chat forum a few participants suggested that there might be a direct link between GWS and the September 11 terror attacks on New York and Washington. One woman points out that she knew many people who had recently come down with similar symptoms to those afflicting Gulf veterans and, perhaps, the terrorists on board had also released some kind of virus or toxin which had also been used

in the Gulf War. Perhaps GWS was a far larger issue that they had previously imagined. Perhaps it is an illness which can afflict the entire population, regardless of sex, class, race, age, or status as a soldier. During a 2002 meeting about GWS at the House of Lords, one congressman suggested just this: that far from being a specialized illness affecting only troops, GWS was a tip of the iceberg. He suggested that GWS was part of a much larger problem that possibly had the same root. In all likelihood, he asserted, GWS is just another name for illnesses affecting millions of people in civilian life: Chronic Fatigue Syndrome, Fibromyalgia, Multiple Chemical Sensitivity, short term memory loss, depression, sleep disturbances, and light sensitivity amongst others. However tragic was the plight of veterans, there was a silver lining to the tragedy of GWS, this Congressman claimed. If we understand the cause of GWS we will understand cause of the illnesses that affect thousands of people.

In the same meeting Ross Perot, the Texan congressman and supporter of Gulf veterans, linked their plight to the vulnerability of all by suggesting that GWS was linked to the war on terror. His discussion of this illness slipped effortlessly into a discussion of the present climate of fear of Iraq and other Arab states as the congressman suggested that GWS proved that Iraq did have and was prepared to use chemical weapons. He passionately suggested that the plight of veterans was relevant to us all as we were now all vulnerable and could end up like them.

GWS seems to be a stone which has been tossed into a pool of water: sending ripples out to infinity. It is a reflection of wider social trends, assumptions and anxieties which seem to resonate with no end in sight. The boundaries of GWS have a way of expanding outwards. The concerns of Jack, the TA squaddie who was a chef in the Gulf War, resonate with Beth's fears, the navy pilot who was recently deployed to Iraq. But the experiences extend even further than veterans and other military personnel. Jack's experience of GWS reach the mother who is worried about whether or not to give the MMR to her 18 month daughter and the young man who is concerned that toxins may be causing him to have allergies to more and more things. As the congressman above suggested, it does not stop there: anyone and everyone is vulnerable to it. The boundaries keep being extended.

CHAPTER 1 GULF WAR SYNDROME

From September 1990 to June 1991, the UK deployed 53,462 military personnel in the Gulf War (Coker *et al.* 1999). In the months after the end of the conflict anecdotal reports of various disorders affecting troops who fought in the Gulf began to surface in the US. However, it was not until 1993 after a television broadcast in June (Unwin *et al.* 1999) that UK soldiers began to present similar symptoms. Many veterans are convinced they are suffering from a unique and new disorder. Explanations advanced include exposure to chemical warfare agents, vaccination, NAPS (Nerve Agent Pre-Treatment Sets) tablets, toxic fumes from burning oil wells, depleted uranium (DU) used in projectiles and tank armour to organophosphate insecticides, yet investigations have produced no compelling evidence of an organic syndrome. UK veterans of the Gulf War report more ill health than servicemen who were not deployed in the Gulf War (Ismail *et al.* 1999; Unwin *et al.* 1999). There is no doubt that Gulf service has affected the wellbeing of some of the members of the armed forces who served in that conflict.

Results clearly show that a proportion of individuals who served in the Gulf feel their health to be 'significantly worse than comparable military personnel' (Unwin *et al.* 1999) and that 17 per cent believe they have something specific called 'Gulf War Syndrome' (GWS) (Chalder *et al.* 2001). However, findings currently indicate that there is no significant increase in mortality, no discrete set of symptoms and no single cause, suggesting that there is no specific syndrome (Ismail *et al.* 1999; The Defence Analytical Services Agency 2004). What is clear, however, is that soldiers who were involved in the Gulf conflict report more symptoms than comparable military cohorts. Symptoms of GWS are extremely widespread, indeed, I found that almost any symptom, illness, or problem is considered a symptom of GWS (Appendix 1 and 2). There is also considerable overlap with other new illnesses such as Chronic Fatigue Syndrome (CFS) and Irritable Bowel Syndrome (IBS) and many veterans consider these disorders as part of their overall diagnosis of GWS. Any symptom or combination of symptoms seem possible markers of GWS, but the most commonly cited symptoms are: fatigue (CFS),

muscle/ joint pain (fibromyalgia), memory problems, bowel and stomach problems (IBS), and loss of sexual drive.

Despite the fact that GWS continues to be a contested illness there is no disputing that many Gulf veterans are ill. It seems clear that additional perspectives are needed to understand the way in which GWS is understood and lived by its sufferers. There is a vast body of literature about the health of Gulf War troops, but very little has been based on sufferers' own accounts. It would appear that medical and epidemiological studies have gone as far as they could in explaining GWS and a more anthropological approach is now needed. By looking at the various narratives that surround GWS, through analysing the comments and views given by veterans, insight will be gained into the cultural, social and psychological dimensions of the construction of the illness and in what ways this has influenced sufferers' understandings. The special contribution that anthropology can make to the study of this illness is that it seeks to contextualise and investigate what else is happening in the lives of these people besides their malaise. Such an approach introduces other elements of which sufferers might or might not, be aware.

THE AIM OF THE THESIS

This thesis is an investigation into a recently emergent illness: GWS. It will describe and report the way in which the illness has emerged and become characterized by specific motifs. GWS is a hotly disputed condition and this thesis focuses mainly on the perspective of sufferers themselves in order to understand how they experience and perceive their illness. Illnesses can be seen as an organizing feature, a way to make sense of life events and distress. They can be seen as generating their energies from already present cultural anxieties and fears of a particular group. Such themes and anxieties help to construct the illness, making it defined along particular lines. This thesis investigates the various metaphors and themes contained in narratives of GWS in order to better understand the condition. It also seeks to contextualize and make sense of the cultural circumstances which gave rise to the illness.

As an anthropologist, I am describing a system of thought. As Littlewood said about Multiple Personality Disorder (MPD), "whether at this point we read multiple personality

as an idiom of distress, as a psychological defence against sexual abuse or as a creative fantasy, whether we grant it some existence as a distinct psycho-physiological entity, socially induced or requiring public acceptance to bring it into the open, its local context and meanings are significant. As Sahlins notes in a not unrelated context, cannibalism is always 'symbolic' even when it is real" (Littlewood 1996: 22). Similarly, whatever we say or believe about GWS, its context and meanings are significant. It is not the anthropologist's role to decide whether or not something is rational, it is our job to make it intelligible (Firth 1985).

Central to this discussion, however, is the concept of rationality. As Overing (1985) suggests, anthropologists ask about moral universes, with their basic duty being to "understand the intentions and objectives of actors within particular social worlds, as well as what these actors say, understand, believe truth and those worlds to be, a task in metaphysical description" (p. 4). In the same volume, Firth argues that it is the role of the investigator to capture both the sense and the sensibility of behaviour. The anthropologist unfolds the *intelligibility* of behaviour, and not so much its 'rationality'. Furthermore, he stresses that the cognitive process does not act in isolation.

Rational judgement and rational action are interwoven, some would say inextricably, with elements of impulse and feeling. Firth shows the way in which what at first appears to be irrational behaviour takes on a different face: a blend of reason and affective reaction when placed in context. What does seem significant is whether it is *intelligible*, i.e. capable of being understood by an anthropologist from another cultural setting but with curiosity to enquire as to meanings (Firth 1985:33). Following Firth, I will contextualize GWS in order to show how it makes sense. Similarly, Gellner (1974) suggests that concepts and beliefs do not exist in isolation, in texts or in individual minds, but in the life of men and societies. Context must be known. The real essence of Durkheim's doctrine, according to Gellner (1974) is the view that concepts, as opposed to sensations, are only possible in a social context and that they can only be understood when the social context is known. Context refracts the line of interpretation, but "tolerance-engendering contextual interpretation calls for caution: that as a method it can be rather more wobbly

that at first appears.... [T]he prior disposition concerning what kind of interpretation one wishes to find, determines the range of context brought in" (p.32).

When we contextualize what people say, it makes sense. The wider and wider we follow the phenomenon out the more sense it makes. In this thesis I investigate GWS as a system of thought and an idiom of distress. I look at the narratives of sufferers and those around them to unravel the way that the illness is both a unique expression and way of making sense of the life-worlds of a particular group of people as well as a product of wider social issues. GWS is wider than the Gulf War; it is characteristic of the anxieties and beliefs of late twentieth century life. There are other things happening in the lives of these men that they are trying to explain and the package is unique. I examine the way in which illnesses are formed by fitting into the existing illness models and the way in which bodily vulnerability is supported by wider social beliefs. GWS emerged and gained media attention because it both responded to and conformed to existing illness beliefs and anxieties. Simultaneously, it was formed by these pre-existing cultural beliefs. Yet Gellner (1974) also warns against too much context; one can widen out to such an extent that the inquiry ceases to make sense: it is necessary to make a decision where the context ends. Thus, I look at GWS within the context of veterans' lives: within the war, the military and more widely; but I also widen the context out in order to see GWS within the realm of twenty-first century health anxieties and beliefs in the West.

An illness movement "will take only if there is a larger social setting that will receive it" (Hacking 1995:40). In order for an illness to gain legitimacy it must resonate with a larger cultural framework which makes it intelligible. Illness representations spread throughout a population: a sort of "epidemiology of representations," the circulation and contagion of ideas and anxieties (Sperber 1985). As Kirmayer (1999) suggests, whether an illness representation gets taken up by many people depends on a number of social factors, including, the "aptness of representations in terms of coexisting cultural representation and practices" (p.279). Hacking (1992a) points out that certain disorders result out of the interaction between the individual and his cultural and medical surroundings. The individual may not be representing a mirror of society, but instead the fault lines of the culture. Every culture has its fears and these fears can help to frame and

to construct social facts such as illness. GWS has been constructed, framed and articulated by particular themes which are relevant to the society. As Obeyesekere (1981; 1990) argues, culture allows individuals to appropriate these collective symbols to work with personal conflict; at the same time, culture works through individuals as each person contributes to new collective meanings through their own symbolic constructions. This thesis is an attempt to investigate the cultural themes and anxieties which allowed GWS to emerge and, in turn, help to construct it.

METHODS

In light of the above, this work uses anthropological fieldwork methods (Appendices 5-9). The data for this research project was collected between September 2001 and November 2002 from in-depth interviews, participant observation and document analysis. The primary data are in-depth interviews with core activists, Gulf War veterans, doctors, scientists and others involved in the GWS movement. A total of 93 interviews were conducted, 67 of which were with UK veterans (see Appendix 3 and 4). Aware from initial research that theories of GWS were constantly being negotiated and altered as new research and theories emerged, I was interested in the way in which some information is accepted in some circles whilst completely dismissed in others. It is clear that GWS is being constructed and framed differently by different groups and this process is ongoing. My initial proposal was to undertake multi-sited research, reflecting the numerous arenas which GWS inhabited. The two main sites I focused upon were veterans/ self help organizations and the medical site of the Gulf Veterans' Medical Assessment Programme (GVMAP), based in the Baird Health Centre at St Thomas' Hospital. It soon became clear that fieldwork does not always follow a plan and that GWS moves through arenas and society in a fluid way. So instead of focusing on sites, I studied the phenomenon of GWS in a variety of settings: following the pattern (GWS) itself into a variety of context in which it was being discussed. A methodological design is used which works across 'texts, practices and contexts' (Franklin 1998:5). This type of approach is perhaps best exemplified in Martin's study of the notion of 'immunity' in America that links seemingly disparate field sites and research tools (1994). My research also maps a process of knowledge communication and dissemination and hence works at the juncture between different sites, persons and practices.

In order to explore the construction of GWS more fully and assess if, and how, knowledge, information, practices and language concerning GWS are mediated, appropriated and transformed; I planned to include selected non-medical sites, namely veterans' organisations. Although there are a number of veterans' associations (Appendix 5)¹, I focused on one in order to do a more situational analysis and to better contextualize the narrative on a smaller level (see Appendix 5:3 and Chapter 6). Also interested in the way GWS was being constructed in the medical and government settings, I conducted fieldwork at the GVMAP (Appendix 6). I hoped this would enable me to observe the cultural parameters along which medical narratives of GWS were being negotiated.

Established in 1993, the GVMAP is run by the MoD in order to respond to veterans' health complaints. Veterans are subjected to a full physical examination by one of the two consultant physicians and given a battery of tests (see Appendix 7). The GVMAP became the arena in which I observed the dialogue between sufferers and medical practitioners and the way in which GWS has been constructed, in part, out of this dialogue. This setting provided me with a way to observe the MoD and official medical position concerning GWS. If the patient agreed, I would observe the entire assessment and often discussed the case briefly with the clinician at the close of the interview. I also spent time at the GVMAP talking and chatting informally with the people who worked there who were a constant source of information.

The majority of my informants were members of the veterans' association and were contacted through the organization, others were accessed by other means: the MoD website and newsletter, *Soldier* magazine, the GVMAP and the other veterans' associations (Appendix 8:1). Most were one-off interviews conducted in the home of the veteran. An interview schedule was used to prompt respondents, who were asked a series of questions regarding their experiences with GWS and other health beliefs. Questions were broad, designed to provide respondents with space to describe their experiences,

¹ For an in-depth discussion of the main veterans' associations involved in the Gulf War Syndrome debate please see Appendix 5 in the Appendices section describing my fieldwork process.

beliefs and assumptions. Informants were also asked to discuss their military and employment background. The interviews ranged from 2 to 4 hours and were audiotaped and transcribed at a later date (for a full description of interview methods see Appendix 8:3).

Exploring the arenas GWS inhabited, I attended a number of large events such as meetings and conferences (Appendix 9), where veterans, advocates, scientists and others were in attendance. Scientists and clinicians (Appendix 8:1) also acted as informants and I conducted formal interviews with them in addition to informal discussions. Doctors' notes, diaries, symptom lists, letters and other documentation were given to me by informants and added to my body of data. Media files (print, radio and television) from the past and present were explored given the great attention GWS has received in this medium. Media reports took a central role in the early stage of my research as I was given access to the MoD archive on GWS held at the King's Research Unit into Combat Syndromes, which contained media clippings about GWS from the emergence of the illness (Appendix 9:2).

Role of the Media

Almost all of my informants reported that whilst they felt ‘not themselves’, they did not realize what was wrong with them until they saw or heard a media report about GWS (see Chapter 6). The role of the media in the construction of this syndrome by means of disseminating information and adding validation to certain assumptions and tropes is central to the development of GWS. As one commentator on GWS suggested, it “is easier to imagine plots than to deal with uncertainties, and more exciting to whip up emotion about enemies within than to contend with the confusion and anxiety of social change. TV and print journalists have played a significant role in escalating anxieties and exacerbating distrust, by playing up suspicions, playing down evidence, and publishing the unproven- and highly disputed- hypothesis of a few doctors” (Showalter 1997b:25).

Of particular interest are the divergence between scientific knowledge and the information reported by the popular press.

The media plays a dominant role in forming and shaping the discourse surrounding the disorder. It has chosen to stress certain aspects and has used certain studies to emphasise their stories. There is a huge discrepancy between the popular press and scientific reporting of GWS in both quantity and content. When GWS entered the public arena the media took a huge interest in the story in excess of the medical interest in it. Between June 1993 and June 1995, in the peer-reviewed medical press there were only six short news items (NIHTWP 1994; McBride 1994; Roberts 1994a and b; Roberts 1995a and b) and three letters (Beale 1994; Revell 1995; Currie 1995).

In contrast, during the same period there were nearly 60 broadsheet and tabloid newspaper articles on GWS. Of the 58 newspaper articles, 49 concentrated on physical causes of GWS, while only 15 mention the possibility of a psychological basis. Of the latter, 4 rejected the psychological explanation out of hand while 10 mentioned Post-Traumatic Stress Disorder (PTSD) but implied that this was not a sufficient explanation of the symptoms. The number of media articles both preceded and exceeded any professional evidence on the subject. This media reporting of GWS was not a response to, nor was it dependent upon, professional publications. The themes that emerged with the disorder, cannot be traced to scientific and medical research. It would seem that scientific and medical research reflect the lay-derived themes of GWS.

Gulf War Syndrome appears to be an example of the non-medical press setting the agenda for the medical press. Between June 1993 and June 1995, as there were no scientific data papers about GWS, many of the newspaper reports relied on the personal testimony of those who are affected. For example, one ex-UK serviceman was mentioned nine times, including one-in depth feature. He was then used as “proof” that GWS exists, and an illustration of its effects. Sometimes, these personal testimonies are actively sought by newspapers: one paper advertised for people to tell their stories. The numerous media reports gave the impression that the problem was much larger than it was. One individual’s story is repeated numerous times, multiplying the effect.

My fieldwork involved following GWS through the various arenas within which GWS moved and I generated a range of data as a result of these various sources of information. In addition to media files and other relevant documentation, this included transcribed interviews with sufferers, family members, advocates and practitioners. Observations of interactions amongst those involved in the arena of GWS were also noted. Noted observations of clinical encounters, formal meetings between scientists, as well as informal discussions with them were also used.

THE GWS DEBATE

When asked what I was studying, the first question immediately fired at me was, “so, does it exist?” I came to expect such questioning from non-academic acquaintances; yet I was also to hear this phrase repeatedly from doctors, scientists, academics and, interestingly, from colleagues. Whenever I presented at conferences or in seminars, other anthropologists would invariably want to focus on physical evidence. It became clear that my anthropology colleagues equally felt that the only way to appropriately represent and give the veterans “a voice” was to suggest that their illness was, in fact, “real”. “Real” meant that it was a physical and discrete biomedical phenomenon; one can see the assumptions wrapped up in this distinction.

‘Does it exist?’ ‘Is it real?’ These are the big questions. Real illness means the veterans are telling the truth, they are truly (physically) suffering, the illness has been caused by an external physical agent; which meant that the government is responsible, which meant they had been poisoned, which meant there is a cover-up and conspiracy. All of these factors are linked. ‘No, it doesn’t exist’ means the veterans are either lying or exaggerating their illness; they are the victims of stress and they are merely trying to get compensation. It is one or the other. I soon realized how widespread are the ideas of government conspiracy and cover-up; as are fears of poisons, toxins and chemicals. My academic colleagues were quick to believe that the government is some evil conspirator and these poor veterans had been caught up in their game.

Hacking (1995) reports a strikingly similar situation when he studied Multiple Personality Disorder. He points out the fallibility of this question: a real *what?* Of course it was real in that there were people that fit the criteria of MPD. Similarly, I would suggest, of course GWS is real; but what is it? As Young (1995) said

If, as I am claiming, PTSD is a historical product, does this mean that it is not real? ... On the contrary, the reality of PTSD is confirmed empirically by its place in people's lives, by their experiences and convictions, and by the personal and collective investments that have been made in it. My job as an ethnographer of PTSD is not to deny its reality but to explain how it and its traumatic memory have been *made* real, to describe the mechanisms through which these phenomena penetrate people's life worlds, acquire facticity, and shape the self-knowledge of patients, clinicians, and researchers (Young 1995:5).

The scenario I describe above exemplifies the debate surrounding GWS. Those involved are forced to take sides: either you believe it exists and all that that goes with it, or you are a non-believer. Either it is physical or it is in their minds. The world of science and, by extension, the Euro-American worldview assumes a world of black and whites. Yet this artificial systems of either A or not-A does not reflect reality where there are two extremes, but infinite shades of gray in between (Kosko 1994). Generally, the debate around GWS is divided into two main and opposing sides. The first includes veterans and their advocates, including a small number of scientists and doctors, who understand the illness to be a unique and discrete biomedical entity. Within this standpoint GWS is a physical illness with an underlying organic pathology caused by exposures in the Gulf. On the other side are those who argue that GWS is not unique and is likely to be psychological in nature. Entwined in this perspective are notions of GWS as a form of hysteria, conversion disorder or somatization.

The King's College Gulf War Research Unit at University of London headed by Simon Wessely undertook the largest study of Gulf veterans in the UK and has dominated research in this area. Wessely and his team lead the side which disputes GWS as a unique organic condition. Their findings suggest that although veterans of the Gulf War report more symptoms and feel their health to be worse, this does not reflect biomedical findings. Nevertheless, the Unit argues that this does not mean that sick veterans do not

have a 'genuine' illness (Wessely 2001), but that contrary to non-expert opinion, it is largely a psychiatric and social disorder. In order to further develop this line of inquiry, the Unit brought in additional perspectives and included an historical programme of research, looking at the nature of previous post conflict syndromes (Jones et al, 2002; Jones and Wessely 2004; in press) and anthropological research (Cohn and Dyson 2003) as well as supporting my research.

Wessely and his team have attracted and incited anger amongst the GWS movement as has the American academic Elaine Showalter, a literary critic and author of *Hystories: Hysterical Epidemics and Modern Culture*. GWS, along with other medically unexplained syndromes are modern-day hysterical epidemics, according to Wessely and Showalter. Although viewed by veterans as supporting a reading of GWS as psychological, Wessely and his team have recently revised their interpretation. Based on ongoing research, Wessely (2001) refutes the suggestion that veterans are not genuinely ill, but feels that to date no firm evidence has been presented of any known underlying medical cause. Likewise, conventional psychiatric disorders also do not sufficiently explain the observed ill health (Ismail et al 2002). Instead, Wessely suggests that we are in uncharted waters and argues for the need to look beyond the narrow confines of both medicine and psychiatry (Wessely 2004).

Showalter (1997a) classes GWS as a modern form of hysteria along with alien abduction and satanic ritual abuse: associations with which veterans were understandably furious. Showalter argues that GWS and the other forms of distress she describes are the result of suffering falling through the gap created between psychological and physical medicine. A gap she asserts has been present throughout history. Linked to this side of the debate is the suggestion that GWS represents a form of conversion or somatization where the true source of veterans' difficulties is psychological distress. The suggestion is that GWS is similar to other reactions to war which have surfaced in the past. In this viewpoint their bodily complaints are arising out of PTSD, depression and/ or anxiety conditions.

Showalter suggests that throughout history hysteria has been a way of expression for those that otherwise may be unable to verbalise their message. Hysteria is "a history in

which the very notions of mind and body, and the boundaries and bridges between them, are constantly being challenged and reconstituted” (Porter 1993:235). In *Approaching Hysteria*, Mark Micale writes that hysteria is “not a disease; rather, it is an alternate physical, verbal, and gestural language, an iconic social communication” (1995:182). Showalter further suggests that what used to be called hysteria is now diagnosed as somatization disorder, conversion disorder, or dissociative identity disorder.

Showalter sees hysteria as a cultural symptom of anxiety and stress. Thus, she sees GWS and its related illnesses as entirely psychological: it is the manifestation and expression of the psyche. A literary critic and historian of medicine, Showalter’s theory lacks a historical or anthropological reading of these disorders. By lumping them all together as manifestations of the same thing she ignores the way each of these conditions is unique and responds to different issues. This thesis goes beyond such a reading and asks how did we get to this state of affairs, from where did it develop and what is happening in culture and society that helps to form such a situation. Showalter’s analysis ignores the differences between these very diverse illnesses and by so doing lacks a real understanding of the conditions themselves and the unique factors which gives rise to them.

Professor Harry Lee, the head of the GVMAP, is another key figure in the side which questions the validity of GWS. The principal finding of his work is that most of the seen at the programme are well. PTSD is the most common psychiatric disorder found, most being as a result of Gulf service (Lee et al. 2002). Psychiatric disorders dominated were found in 85 percent of the unwell patients. Lee and his colleagues link GWS to other medically unexplained syndromes and suggest that they are likely to result out of psychosocial distress rather than medical illness. Lee et al. (2002) conclude that sufferers are likely to have psychosomatic or somatization disorder. Somatization in the field of biomedicine refers to the presentation of bodily complaints assumed to arise from psychological disturbance but which are attributed by the patient to organic disease. It is the propensity to experience and report somatic symptoms that have no pathophysiological explanation, to misattribute them to disease, and to seek medical attention for them (Lipowski 1988).

Table One: The Gulf War Debate

Position A	Position B
GWS is a unique illness	GWS is not unique
GWS is an organic in nature	GWS is not organic; likely socio- psychological in nature
GWS was caused by preventative measures and exposures in the Gulf War	GWS was caused by experiences in the Gulf, PTSD or more general anxiety or depression (not necessarily in Gulf)
Veterans, Malcolm Hooper, Veterans' associations	Harry Lee (GVMAP); Simon Wessely and team

The situation as it stands is one in which any findings or suggestions put forth by one side is immediately attacked, derided or, more often, ignored by the opposing side. There is very little communication between the groups: though the British Legion has brought them together in a regular forum, admittedly this has not led to a meeting of minds. This thesis is an attempt to go beyond this dichotomy: to show the way in which the debate has become stagnant and unhelpful for all involved. It will show how GWS is neither physical nor psychological, but both; but it is also a social, cultural and personal phenomenon. GWS must be seen in context and a reading of this illness must take into account wider social issues.

ANTHROPOLOGICAL APPROACH

Whereas biomedical interpretations of GWS rest on the presumption that it is an expression of psychiatric disturbance, anthropologists argue that somatization need not be limited to expressions of psychiatric distress. Anthropologists have shown that somatic symptoms are the most common individual expression of social problems and emotional distress (Kirmayer and Young 1988) and are referred to as “idioms of distress” (Nichter 1981; Kirmayer 1996). This idiomatic use of symptoms “allows people to draw attention to- and metaphorically comment on- the nature of their quandary” (Kirmayer 1996:3). When reduced simply to symptoms of a disorder the meaningful and social dimension of distress may be lost (Kirmayer 1999). This thesis, then, is an attempt to re-balance the dialogue surrounding GWS by introducing an account of the context of the illness. This investigation into GWS focuses on the sufferers’ accounts, the symptoms themselves and

the context within which we find them in order to better understand what is being expressed and commented upon.

Interpreting somatic symptoms

Sickness is not just an isolated event, not an unfortunate brush with nature. It is a form of communication through which nature, society and culture speak spontaneously (Scheper-Hughes and Lock 1987:31).

Scheper-Hughes and Lock (1986:138-139) suggest the need to conceptualize illness symptoms not only as “biological entities”; but also as “coded metaphors that speak to the contradictory aspects of social life, expressing feelings, sentiments, and ideas that must otherwise be kept hidden”. Sociologists and medical anthropologists have focused on the way in which metaphor informs illness through its relationship with physical experience (Lakoff and Johnson 1980) and the way in which certain metaphors become prevalent tropes for illness (Sontag 1978; Hacking 1992b; Littlewood 1998). As Sontag (1978) suggested, metaphor infuses certain illnesses with such meaning that they become a symbol of their time. Although she felt that metaphor should be stripped away, I would maintain that one cannot easily strip away metaphorical thinking, indeed, it is just this kind of metaphorical play that is investigated in this work. Furthermore, people simply do not experience illness as biomedical disease at the level of cells and tissues. Sontag warns against disease being translated into metaphor and Scheper-Hughes and Lock warn against the opposite: the translation of metaphors of experience to be reified into biomedical entities. The individual body should be seen as the locus of personal and social resistance as well as the site where social truths and social contradictions are carried out (Scheper-Hughes and Lock 1987:31).

Anthropologists have argued that physical bodies are shaped by culture, partly by means of widely held models, images, and metaphors. Metaphor not only arises out of embodied experience but, conversely, becomes embodied (Kirmayer 1992); and, thus we should investigate “the psychophysiology of metaphor” (p.336). In a discussion which ties together immune systems, health, psychology and culture, researchers have suggested that cultural dissonance may be enacted somatically (see Wilce 2003). When the

“individual is continuously checking his or her own cultural consonance and finds it wanting, it is likely to be a frustrating and depressing circumstance. This is a process that is also expressed somatically” (Dressler *et al.* 1998:440 quoted in Wilce and Price 2003). So, for example, one of the few somatic interpretations of culture bound syndromes, Balinese pregnancy with stones (Wikan 1990), could be interpreted as a failure to live up to Balinese ideals (Wilce and Price 2003). A flat stomach represents discipline and self-control; in contrast, the bloated stomach is the very image of the failure to meet standards of hard work and self-denial. The abdomen “becomes the site in which Balinese might involuntarily be made to embody status-conflict and social tensions” (Wilce and Price 2003:64).

The relationship between metaphor and illness is fluid and travels in both directions. Metaphor informs illness and certain metaphors become dominant tropes for illness. But illnesses are also metaphors of experience. Metaphor can be appropriated to draw attention to and comment upon a dilemma, becoming a social and political critique (Kirmayer 1992; Lock and Scheper-Hughes 1996, 1987). Any culture allows individuals to appropriate shared symbols to work with personal conflict (Obeyesekere 1981; 1990). GWS can be interpreted as a personal and social expression of the concerns and experiences of those it affects.

Although helpful to conceptualise how we might approach GWS, it is important to see the limitations of Scheper-Hughes and Lock. Their approach seems to reproduce the conventional knowledge that supports both biomedical discourse and popular discourse on illness. DiGiacomo (1992) argues:

In its refusal of the possibility of random misfortune, the theory of the “mindful body” reveals itself to be a full participant in the very Western ethnoepistemology it rejects, which “extends the realm of personal agency by psychologizing experience” (Kirmayer 1988:82)... Here it is not the “duality of mind and body” that “provides a metaphoric basis for thinking about social responsibility and individual will” (Kirmayer 1988:83), but the collapse of this duality into the unity of the “mindful body.” The cause of- and the blame for- suffering are here attributed not to the individual, but to an “insufferable social and economic order” (Scheper-Hughes and Lock 1987:31)... If, as Taussig (1980) argues, the reification of illness as disease reproduces a capitalist social and political ideology in the guise of

a science of physical things, then reifying illness- all illness, from depression to cancer- as “protest” or “resistance” also recruits suffering into the service of an ideological agenda. No doubt it is an agenda more appealing to most of us than the commodification of experience, but this is beside the point (p.126).

Scheper-Hughes and Lock’s approach assumes biomedicine and social relations in late-capitalist societies are uniform entities and condemns them sweepingly. Biomedicine and psychiatry are said to shape alienation and anomie into “symptoms of new diseases such as Premenstrual Syndrome (PMS) or Attention Deficit Disorder (ADD),” refusing to see such symptoms as “socially significant ‘signs.’” Yet in the case of GWS it would seem that it is the institutions that are resisting claiming GWS as their own. Indeed, it is the veterans who appear to be resisting anything other than a biomedical reading of their illness. Despite limitations, I do think that Scheper-Hughes and Lock’s approach is a helpful way to approach an illness like GWS; which is contested, medically unexplained and so entwined with social, cultural and political issues.

On new and contested illnesses

GWS shares many features with other contemporary illnesses and their social-political movements. GWS is one of a series of new and contested illnesses which share many significant features and themselves arose out of twentieth/ twenty first century cultural anxieties and beliefs. As we begin to discuss GWS it is important to note that it overlaps with other illnesses such as Chronic Fatigue Syndrome (CFS), Irritable Bowel Syndrome (IBS), Multiple Chemical Sensitivity (MCS), and fibromyalgia, amongst others, and the symptoms are often the same. GWS, for example, has been described as CFS for the military and many GWS sufferers list IBS, CFS and fibromyalgia as common aspects of their overall condition. Dumit, one of the few social scientists who works on these emerging illnesses, groups them together as “Illnesses you have to fight to get” and outlines a number of key features they have in common. They are “biomental” in that their “nature and existence are contested as to whether they are primarily mental, psychiatric, or biological” (Dumit, forthcoming:3) and they are co-morbid, making the boundaries between them unclear. Furthermore, in contrast to “analyses of the genome project, these people are not ‘at risk’ or ‘presymptomatically ill’ (Dryfuss & Nelkin 1992; Strathern 1995:105), but rather the opposite: symptomatically non-ill. Rather than

biology preceding symptoms, the symptoms precede biology” (Dumit submitted:3). GWS also shares with other new illness movements the focus on the physical nature of the illness, a characteristic linked with their anti-psychiatry position.

Just as GWS can be seen as part of a larger family of new and contested illnesses, it should also be understood against the backdrop of increasing anxiety about health that we find in the present cultural milieu. Health scares, spurred on by media attention, provide a constant backdrop to twenty-first century Euro-American life. We live in a society perpetually fearful of toxins, allergens, chemical and viruses which we see as constant threats to health (Chapters 2, 3 and 4) mainly via their effect on the immune system (Chapter 5). The last chapter (Chapter 9) discusses the wider context of GWS by positioning it in relation to wider health anxieties and other emergent illnesses. Health has been industrialized and commercialized in a fashion that enhances many people’s dissatisfaction with their own health (Barsky 1988:416). The mass media have placed an increasing emphasis on ‘health’, amplifying the public’s sense of somatic vulnerability and apprehension of illness (Barsky 1988). Toxic shock syndrome is an example of the way in which this “medico-media hype” (Clark 1986) can produce unwarranted anxiety and fear (Weiner 1986; Todd 1981 in Barsky 1988). In the past decade we have seen this trend increase at an alarming rate. Media reports often exaggerate health hazards and relay factual inaccuracies to the public. Preliminary research findings are touted as breakthroughs and presented without appropriate cautions. This “medico-media hype, promulgated by media people, advertisers, public relations experts, manufacturers, and even some members of the health professions, induces a cultural climate of alarm and hypochondria, undermining feelings of well-being” (Barsky 1988:416).

The following four chapters focus on GWS explanatory models and the way they reflect widespread health beliefs. Chapter Two explores the theories of causation of GWS: the biomedical construction is presented followed by the view of veterans. The next chapter is a continuation of this discussion and uses the same extended narrative to investigate the construction of knowledge about GWS and the creation of knowledge networks. The way in which GWS theories of causation are layered is explored as is the way GWS narratives appear to involve a search for meaning.

Veterans are trying to make sense of the chaos of their lives. In the present climate, which lacks meta-narratives, people construct them for themselves, often through illness and other social movements. Structuring one's biography around a template of CFS or GWS provides an inclusive, yet flexible system through which to make meaning out of experiences. They provide a template to restructure identity. GWS, for example, provides a comprehensive model to make sense of all veterans' suffering, personal difficulties and illness. Through the explanation of GWS all experiences of misfortune and illness are linked together and made intelligible. So here I turn to Evans-Pritchard, for which anthropologist can think of cultural responses to misfortune without thinking of *Witchcraft, Oracles and Magic among the Azande* (1937 [1976])?

For the Azande immediate and natural causes were understood to cause misfortune and illness, yet there was a further aspect which answered the 'why', the reason for the association in time and space. As Evans-Pritchard explains, "Every Zande knows that termites eats the supports [of the granaries]." But "why should these particular people have been sitting under this particular granary at the particular moment when it collapsed?" (1976:22). Thus, although practical reasons explain the immediate causes of illness and misfortune, the Azande turn to witchcraft to answer the "why me?" question, to find an underlying cause in the moral universe and a response that is socially embedded and morally satisfying. Evans-Pritchard describes the boy who hurts his foot on a stump and the cut subsequently gets infected: as a "conclusive argument for his view he remarked that all cuts do not take days to heal but, on the contrary, close quickly, for that is the nature of cuts. Why, then, had his sore festered and remained open if there were no witchcraft behind it?" This was to be regarded as the Zande explanation of sickness (Evans Pritchard 1976:20). Such an explanatory system can be seen as similar to Gulf veterans' understanding of their illness.

One veteran explained to me that he walked with a walking stick because he had a bad leg. He had a bad leg because of a motorcycle accident, but he was disabled because the leg did not heal properly because of GWS. In other cases veterans would say that they had cancer. But that cancer did not run in their family or they thought it was "rare" for

them to get it and, thus, they had cancer due to the exposures in the Gulf. Others might say that their illness “was in them” but it was triggered by the Gulf exposures, thus, they would not have actually become ill if they hadn’t been to the Gulf. Similar to witchcraft philosophy, the real cause need not be excluded.

Central to the next two chapters is the way in which the GWS movement is in dialogue with the biomedical understanding, accommodating and resisting certain medical theories. Veterans are taught early on to see the source of their difficulties as arising from various toxins and chemicals from the Gulf War. Sufferers are often considered the real experts of new illnesses: experiential knowledge takes precedence over scientific expertise. Unlike other new illness movements such as CFS or MCS (or think about the recent furore in the UK over the Measles, Mumps and Rubella vaccination (MMR) instigated by Dr. Wakefield), which were led by individual doctors, GWS was entirely sufferer-led in the early stages. But it was not just the ‘victims’ who are widely quoted. People such as Hilary Meredith, the solicitor dealing with the mass action, and Jesse Brown, a US veteran affairs secretary, have been assigned ‘expert’ status, and their statements are often accepted uncritically. This can clearly cause confusion when the information they provide is erroneous, as was the case when Hilary Meredith was quoted as saying, “It is a well-known fact that ME can be caused by flu injection” (*The Times* 1995).

Contained in Chapter Four is the way veterans see their bodies, body fluids and their body boundaries as altered as a result of the exposures discussed in the previous chapter. Chapter Five is an extension of this notion of body boundaries: at this point we travel within the body to a discussion of the centrality of the immune system in GWS narratives. GWS is not the only new illness or health scare that has grabbed the public and the media’s attention, but it has done so for many years. GWS is symbolically loaded: it is *about* much more than itself. It is a hot topic about which most people have a political interest and investment.

Similar to other new and contested illnesses, GWS has an accompanying social movement. Using a term coined by Rabinow (1992), Dumit emphasises the “biosocial”

nature of these illnesses. Most sufferers have formed movements around their illness and are “organized, coordinated, and feel a kinship based on their shared illness experience” (forthcoming). Veterans’ kinship is based on illness and supercedes traditional comradeship based on batallions and/ or combat experiences. The illness itself is a lifestyle and becomes intimately linked with identity. Chapter Six focuses on the support groups themselves and the way these groups help to construct a GWS narrative and identity, particularly the way psychological explanations are rejected. Although contextualizing GWS must take into account its relationship with other contested illnesses and more general health beliefs, it is also a unique illness with distinctive characteristics. Chapter Seven focuses on the themes of contagion, sex and sexuality which arise clearly from veterans’ narratives and the way these can be interpreted as concerning masculinity. This leads us on to Chapter Eight which seeks to contextualize the discussion in the previous chapter looking at the role of masculinity in the military and the way this regimented notion of masculinity was under threat at the time GWS emerged.

Other anthropologists have turned their attentions to medically unexplained and contested illnesses. Looking at CFS, Ware (1993) argued that insight into sufferers’ *local social worlds* (Kleinman & Kleinman 1991a)- those shared interpersonal experiences that take place in the immediate domains of family, community and workplace- is essential to an adequate understanding the condition. Ware (1993) found that “the symptoms of CFS may represent the embodied experience and expression of social sources of distress” (p.68). Between 1983 and 1987 there was an Australian epidemic of Repetitive Strain Injury (RSI). RSI “became an emblem of other social problems in Australia: work dissatisfaction, the socioeconomic plight of migrants, concerns about the impact of automation in the workplace, as well as idiosyncratic issues of individuals” (Kirmayer 1999:277). RSI functioned rhetorically as “a polysemic metaphor not only for what ailed the Australian workforce, for what ails Australian society” (Reid and Reynold 1990:185).

A very major concern I had throughout my research was the possibility that my thesis could be used to harm the veterans with whom I had spoken. With the possibility of a compensation claim, for example, what if my conclusions were used to support a denial

of GWS? Any social study of a contested or disputed condition or reality will potentially explain the problem away. As an anthropologist, my focus is on the social and cultural factors of this illness; thus, at the very outset of my research I was not going to conclude in the way that sufferers and their advocates would want: that the illness was a “real”, biological, organic entity caused by exposures and that the government was to blame.

A study such as this one which focuses on the social construction of an illness and a contested illness, in particular, must take into account the problems social examinations pose for the entities they study. Bammer and Martin (1992) looked into the problem social constructionist studies provide for Repetitive Strain Injury (RSI). They looked at why it is that diverse approaches to the social examination of RSI all seem to be more useful to the critics than the proponents of RSI (Bammer and Martin 1992). Research which pointed out the social causal factors of RSI were used to imply it was not a true medical condition. Social constructionist perspectives helped to dismantle the case for RSI being a “real” biomedical disorder by undermining the significance of efforts of RSI proponents to wield scientific methods to prove its existence (Bammer and Martin 1992). Ultimately, “the challenge to the status quo posed through RSI was neutralized by psychological attributions: RSI was transformed from an indication of poor conditions in the workplace to a sign of individual vulnerability or even culpability” (Kirmayer 1999: 274).

An approach which focuses on the deconstruction of knowledge claims selectively aids the critics of RSI because it undermines the position of those who say RSI is a real organic condition. Approaches to studying RSI may appear nonpartisan in the abstract, Bammer and Martin suggest, but cannot remain so in practice because sociological concepts and studies have been taken up in the debate. Such studies result in a *de facto* partisanship (refers to the way in which choice of a framework for analysis tends to lead to conclusions favoring a particular point of view). *De facto* partisanship does not depend on conscious intent and can be contrary to the intent of the analyst (Bammer and Martin 1992). Whether it is intended or not, the work may be taken up by advocates in the debate being studied. A range of claims-makers may try to “capture” analysts to serve their own purpose (Bammer and Martin 1992). This process of attempted capture cannot

be avoided by the analyst and undermines the claims to neutrality (Hess 1993 in Bammer and Martin 1992; Scott et al 1990). The authors' conclusion is that it is futile to attempt to eliminate partisanship "de facto or otherwise. Instead, a plurality of partisanships should be encouraged, in the spirit of the maxim that 'there is no single road to truth'" (Bammer and Martin 1992:231).

By focusing on the cultural and social dimensions of GWS, I am immediately stating that there is more to this illness than pure organic causes and symptoms. For a medical anthropologist this is self evident, yet for those reading my work this could be seen as harmful in itself, as it goes against what the veterans are struggling to have acknowledged. In addition to this, by studying this subject I am acknowledging that it is in dispute and that I do not agree with the veterans' position that the organic nature of the illness has been proven. However, I am not saying that these men and women are malingering, hysterical or suffering from a psychiatric condition. Elaine Showalter and Edward Shorter have said that people who are suffering from these sorts of conditions- CFS, Alien Abduction, MCS, GWS are hysterical or psychosomatic, they suggest that its not the sufferers who have to change, but society itself. We all agree these people are suffering, we don't know why, and they are not getting help. Taking positions and being forced to take positions gets us nowhere. In fact, we are now in a situation where the debate is stalemated and neither "side" listens to nor trusts the other.

Dumit (forthcoming) has described the problems in writing about contested illnesses. For an anthropologist, "the ethics as well as the politics of description and definition are prominent. There are no neutral descriptive terms. Multiple Chemical Sensitivity, for instance, is variously contested as an illness, disease, syndrome, sickness, or disorder. Nor are means of testing innocent. Immunological, genetic, brain imaging, psychiatric, and toxicological tests each presuppose research priorities and something about the character of the patients. Every attempt to define or study them thus already takes sides in legal, medical, personal, political, and economic conflicts" (Dumit forthcoming:4).

ETHICAL ISSUES

The above discussion introduces some of the issues with which I grappled; yet these were not the only ethical difficulties I faced during my investigation. As I was part-funded by the MoD and the Canadian government, I could be seen as being biased in my research by the veterans. When offered this funding I asked the heads of the two veterans' associations (with whom I had already had some contact) if they would still be prepared to cooperate with my research. I made it clear to them that although I would be part-funded by these bodies, I would be free from interference and would remain an independent researcher. Both associations said that they would be happy to continue participation as long as I was independent and that the MoD would not get further information other than my PhD thesis, which they knew would be available in any case. Although I was concerned with the potential problems MoD funding could produce, I decided to accept the funding.

Other ethical considerations arose in relation to my own affiliations. Professor Simon Wessely was my second supervisor and had been involved in the early stages of my PhD. Once I began fieldwork, however, it became clear that any direct affiliations with him and his unit would be detrimental to my work and could potentially affect access to informants. Although I did mention to one head of the veteran's association that I was part-supervised by Professor Wessely, I did not make this relationship explicit to other veterans. In the first few days of fieldwork I became convinced that if I were to offer this information, the veteran would likely refuse to speak with me. This is because of the reasons I gave above, that Wessely and his team characterized the side of the debate that do not recognize GWS as a unique, organic condition. Wessely was seen by the veterans as antithetical to their cause. Thus, I decided my only choice was to distance myself from Professor Wessely in order that my non-disclosure would be a truthful reflection of my situation. So although Professor Wessely remained as an official secondary supervisor, I did not use him in this capacity during my fieldwork. There was, therefore, a balance between what I could and could not disclose in order to gain co-operation.

My contact with the MoD, the King's research unit and the GVMAP made it necessary to deal at all times in a professional manner in regards to the information I was collecting.

As many of the veterans I was interviewing were known to the members of these different research centres and the MoD, I had to focus on confidentiality and not discuss any particularities, although at times I was asked. Similarly, veterans were interested in the information I was gaining from the above institutions. The fact that the environment surrounding GWS circles is rife with paranoia and suspicion made the situation all the more sensitive. Similarly, at times I felt as though I wasn't representing myself as honestly as I could do, particularly to the veterans. I presented myself as a medical anthropologist who was interested in studying veterans of the Gulf War who were ill. I explained that I was interested in the beliefs and their perspectives. I explained as best I could that I was not a medic and, thus, would not be focusing on the "reality" of the condition or what had caused it. However, I often felt that the veterans did not fully understand and were interested in how I was to "help" them and their cause.

This leads me to another ethical issue with which I have grappled throughout my research. What does one do when the people one is studying will disagree with the interpretation one is presenting? And more worryingly, what happens when one's informants feel as though they have been betrayed by one's findings? In his work based on his fieldwork in a Genetic Counseling Clinic, Bosk (1992; 2001) was faced with such feelings of betrayals on the part of his informants. Both the surgeons and the genetic counsellors felt misrepresented by his thesis. This sense of betrayal, however, did not centre on the accuracy of his description; but on the context within which he placed the description of incidents rather than the incidents themselves. Thus, it was his interpretation which they disagreed with and were angered by. Bosk responded by noting that: "but the interpretation was, rightly or wrongly, for better or worse, mine" (Bosk 2001:211).

The very nature of the way in which we are trained to think as anthropologists means we are likely to conclude in ways with which our informants do not agree. The most "characteristic ways a social scientist learns to think are organized to disabuse any group of its own notions of its 'specialness'. ... We point out how such sentiments are shared by other groups and are manipulated by those groups for their own advantage; we show how altruistic beliefs cloak self-interest. In short, what we do is take a group's sense of its

specialness and inspect it; and while inspecting it, we show how ordinary, commonplace, and self-serving it really is. Few groups are grateful for this” (Bosk 2001:213).

Bosk (2001) discusses the way in which ethnography is innately an unethical pursuit. He says, we ethnographers “betray our subjects twice: first, when we manipulate our relationship with subjects to generate data and then again when we retire to our desks to transform experience to text” (Bosk 2001:206). Bosk suggests that ethnography invariably involves deception. Subjects “misread the ethnographer’s interest in their world, and ethnographers take no pains to correct these misreadings. Subjects do not understand that ethnographers debunk what Becker (1968) called “conventional sentimentality,” the commonly accepted social versions of virtue and vice; that ethnographers write in an arch, ironic voice; that the objective of ethnographic writing often is to “debunk”; and that this debunking is accomplished by showing how altruistic statements hide self-interested motives” (Bosk 2001:217). Ethnographers, however, usually focus on low status groups and their findings are not often read; all this changes when they study high-status groups. The people I have chosen to study have a real interest in my findings and will, I imagine, read some of my work. Furthermore, as a result of the small size of those involved and the intense attention they receive, informants are more likely to feel recognized and slighted if they do not like what I have written. Although most of my informants suggested using their real names “so that the MoD could not deny”, I felt it was extremely important to protect their identities. Thus, all names of veterans have been changed along with other identifying features. This posed some difficulty however, as many of the veterans are known as a result of their high media profile and their own contact with the MoD. The names of scientists and government figures, however, were not changed. The scientists and researchers who appear in this thesis are well-known and public figures who are linked to their published literature and, thus, it would be impossible to mask their identities.

CHAPTER 10 DEBILITATION

Part I

During the Gulf War, the symptoms of Gulf War Syndrome were first reported by soldiers returning from the Gulf. The symptoms included fatigue, headaches, and joint pain. The symptoms were first reported by soldiers returning from the Gulf.

Gulf War Syndrome Explanatory Models

Gulf War Syndrome is a complex condition with multiple potential causes. The following are some of the most widely discussed explanatory models:

- 1. **Chemical exposure:** Exposure to chemical agents such as sarin, VX, and mustard gas during the Gulf War is a leading theory for the development of Gulf War Syndrome.
- 2. **Infectious agents:** Some researchers believe that exposure to infectious agents, such as the hantavirus, may have caused the syndrome.
- 3. **Psychological factors:** The stress and trauma of war, along with the loss of comrades and the uncertainty of the future, may have contributed to the development of the syndrome.
- 4. **Immunological factors:** Some researchers believe that the syndrome is an autoimmune disorder, where the body's immune system attacks its own tissues.
- 5. **Genetic factors:** Some researchers believe that genetic factors may play a role in the development of the syndrome.



A soldier gets vaccinations in preparation for the Gulf

CHAPTER TWO DESERT RATS; NOT LAB RATS¹

During their AGM the members of the NGVFA discussed their experiences of the war. One veteran stood up and said, “We were desert rats, not lab rats”. The rest of the room agreed enthusiastically. I was struck by this interesting analogy because it seemed to embody the veterans’ beliefs: their ongoing attachment to their identity as a soldier in the Gulf War and their unbending assertion that they had been experimented upon by their government.

INTRODUCTION

In this chapter I will be discussing the meaning system and the explanatory model(s) of GWS. Gulf veterans had a series of experiences and they make sense of them in a particular way, understanding their suffering as caused by the various exposures: vaccinations and other preventative measures, DU, chemical weapons, organophosphates (OPs), and oil fires. This system is both closed and open. It is still in flux, accommodating new findings, new scientific directions and is open to internal alterations as long as the central tenet remains intact. Information which would contradict the overall explanation- that Gulf War exposures caused a physical illness- are ignored, dismissed or altered. At times parts of theories are used whilst the other aspects are forgotten. Furthermore, theories of causation of GWS remain a watertight system able to deflect criticism and accommodate a vast array of factors which, at times, appear to be contradictory. Veterans’ and their advocates’ theories are a jumble of various strings sometimes overlapping, sometimes held simultaneously, and often being altered. This system may look confused, but it is no different from how most people make sense of the world; people pick and choose those theories available to them to best make sense of their view of the world. It is a coherent system but it is also flexible. As Evans-Pritchard said of Azande witchcraft beliefs:

[T]hey are not indivisible ideational structures but are loose associations of notions. When a writer brings them together in a book and presents them as a conceptual system their insufficiencies and contradictions are at

¹ ‘Desert Rats’ was the nickname of the Gulf War 7th Armoured Brigade.

once apparent. In real life they do not function as a whole but in bits. A man in one situation utilizes what in the beliefs are convenient to him and pays no attention to other elements which he might use in different situations. Hence a single even may evoke a number of different and contradictory beliefs among different persons (1976:221).

In this chapter I briefly describe the view of GWS held by the scientific community. This is then contrasted with the veterans' vision of GWS by way of a long and complete (edited) narrative. I then move on to an analysis of the various themes which emerge from the narrative and supplement it with other data. Although there is a mainstream biomedical understanding of the illness, science is not homogeneous and there are scientists and doctors who dispute the biomedical construction. Veterans make use of these scientist's theories and incorporate them into their explanatory models. Whilst veterans generally ignore and dispute findings put forward by those in Group B (Wessely, Lee) they do incorporate those aspects which support their construction of their illness; thus, they pick and choose using parts of theories, combining and changing them. Despite denials by the scientific community of a unique GWS, public understanding of the illness is very much the veterans' view. In this section we see the way people build theories to make sense of their lives and the way that this may not reflect the biomedical way of making sense of the world, yet veterans theories remain very rooted in science and medical language. Veterans ignore, embrace, alter and accommodate various scientific findings and understandings about GWS and the world at large.

Although often presented as bizarre, illogical, and incoherent, on closer inspection veterans' accounts make a great deal of sense. Their focus on dangerous exposures resonates with common cultural fears of toxins, chemical and other invisible dangers. There is a sense that exposure implies contamination, reminiscent of Frazer's notion of contagion: that two things which have been in contact continue to act on one another long after the physical connection has been severed. The idea that there is something inside them, that they are experiencing an interactive assault sounds more than reasonable in a world where we are constantly concerned about the way certain things effect our immune system. These narratives sound familiar to us: they remind up of recognizable ailments. Their emphasis on the individuality of the illness echoes common sense ideas about

health and illness. The notion that assaults effect each of us differently simply makes sense.

BIOMEDICAL POSITION ON GWS

The accepted biomedical understanding of GWS is that it is a medically unexplained syndrome: that we do not (yet) have a medical explanation for it. Although it is acknowledged that some veterans of the Gulf conflict have become ill and report more ill health than comparable groups, the suggestion is that this pattern of ill health is not unique to Gulf veterans (Unwin et al 1999, Ismail et al 1999, Cherry et al, 2001). The same symptoms are seen in UK military personnel who did not deploy to the Gulf. However, veterans of the 1990/91 Gulf Conflict report having more of the symptoms and are suffering more severely from them.

Studies have found that Gulf veterans do not present with a distinct and identifiable pattern of symptoms or signs and, thus, the consensus of the international scientific and medical community is that there is insufficient evidence to enable this ill-health to be characterised as a unique illness or syndrome. In May 2003 The Medical Research Council (MRC) addressed this in a review of research and came to the same conclusion, arguing against labeling the condition as a unique illness. In short, findings from the scientific and medical community have led the MoD, the government, and medical institutions not to recognise “Gulf War Syndrome” as a medical condition. Each exposure and the possible “cocktail effect” have been studied in depth and dismissed as causes of GWS. What is interesting is the way in which the focus for both the scientific and veteran communities has remained on the exposures themselves. The medical view is that this illness is more than likely to be a psychological or social condition: that GWS is either the result of psychosomatic or somatization processes, as discussed in the previous chapter.

A VETERAN’S VIEW

Debbie and Mark are well known in the GWS community due to their high media profile. Mark is ill with GWS, but what is unique about this family is that they have four children

who are also ill (see Chapter 7). After being put in touch with the family by the veterans' association, I went to stay with them for a few days. They told me that they had become involved in the veterans' association in 1994 after reading a story in the paper. Debbie said that before she saw the article she felt that there was something wrong with her husband but that he would not admit it. It was not until after her first two children were born, she said, that Mark began to think there might be a problem. She would notice things in Mark, like he seemed to have stiff joints; there were times when she would be talking to him, but it was like he was not there. He was irritable and "snappy". Debbie said she just had the sense that something was not right so when she saw the story in the paper and the association's contact details, she rang them up.

Mark had joined the army in 1985 at the age of 16. After his initial training he became a tank transporter driver. He was based in Germany for three years and also did two tours of Ireland. In October 1990 he was sent to the Gulf and returned to the UK in June 1991. Soon after returning Mark began experiencing pains in his legs which made it more difficult to complete fitness tests. One month after he came back from the Gulf he met Debbie, who was also in the army. When Debbie met Mark he was having some health problems: he was spitting up blood and was taking tablets for a bad stomach. The problem is, she says, that she doesn't know what was wrong with him because he cannot remember and all of his medical records have been lost. The army was changing and a lot of people were leaving the forces, so Mark decided to leave the army in 1993, as did Debbie. Once Mark left military life he became a lorry driver, a job he did until 2000, at which time he stopped working.

Debbie says that their doctors do not know what is wrong with Mark and they are as frustrated about it as he is. Sometimes she wonders if it was something other than the Gulf that had made them all ill, but if it wasn't the Gulf what could it be? At times the doctors have said that her eldest son's problems are all in the child's head and the same has been said of Mark. They have a nutritionist who is interested in the Gulf War who put them in touch with Paul Schott who works on diet and autism. Schott conducted a urine test on Mark and it revealed vaccine poisoning; he suggested that they get in contact

with Malcolm Hooper, a leading scientist in the GWS movement who is also the veterans' scientific advisor. When asked about what caused the illness, both immediately pointed to the vaccines.

Mark has knee pain, joint pain, forgetfulness, mood swings, flashbacks, bleeding gums, ulcers and "bleeding from his backside" and his "get up and go gets up and goes". He has also been diagnosed as suffering from PTSD and has been told by doctors at the GVMAP that most of his problems are psychiatric. As Mark understands it, the doctors said: it is your "brain saying you have these problems but [you] don't really. It's all in your head. I don't think what you've seen would make your joints sore," argued Mark. Mark continued:

Like we don't know what causes the Gulf war illness, but there is evidence of, um, personally I've got what's shown as massive vaccine damage in the stomach umm, or even the back passage or oral bleeding. [1]² Those are all physical things I don't see how a psychiatric problem could cause you to bleed, you know what I mean? ...The bleeding, it's something that's there you can actually see it. The vaccine damage is there; you can see it... But the illness itself, it was a lot of small things that you didn't really piece together. Like the joints and then being sore. [2] I thought that maybe it was because I had been in the army since I was seventeen and it was a bit too much. Umm and the fact the job did entail a lot of heavy lifting. Um, and my knee, my doctor gave me an explanation for the knee, he said the knee cap was crumbling, due to running in boots and the lifting, the heavy lifting and lifting things incorrectly and things like that. [3] Um, it wasn't really until we were out and we started meeting, I suppose it was Debbie that started to put it together first. Sort of reading about it in the newspaper and people describing their problems and you are thinking, 'well I've got some of their problems as well'. Not as much as what some of them have got, obviously... and then just piece it together like that and then by talking to people as well. And Debbie, she's on the phone to people and they're describing their husbands and she's like, "You just described my husband as well." People that you don't know. It's not as though that it's a great conspiracy... people talking to people they've never met in their lives... and that's how you put it down. And the only thing we had in common was the fact that we'd been to the Gulf. [...]

[4] I don't think anybody knows what caused it and I don't think anybody will know what caused it. And really I don't think it really matters what

² Throughout the narrative I assign numbers to different topics. In the discussion section that follows, I refer back to these topics by reference to the topic number and page number.

caused it... It might do to the medical people and that, but I don't think it really matters. I think the main thing is that you are trying to find a way to help people that suffer from it rather than being obsessed with finding the cause. I suppose the cause [is important] for those that don't think it exists. [5] I think it's a combination of everything. [6] The fact that they gave us all these vaccinations and in such a short space of time. [7] Um and giving us unlicensed drugs as well, and the [8] NAPS: they were unlicensed and untried, untested on humans until we went to the Gulf. So really we were guinea pigs for the NAPS. [9] There's also the issue with the DU as well. We came in contact with vehicles that had been hit with DU shells. Battlefields that were covered in spent DU rounds. [10] Smoke from the oil fires as well. We were driving through those as well. When we were driving from Kuwait into Saudi Arabia. [11] You got the adrenaline pumping through your body, [12] so I think it's a combination of all that that caused it. [13] There was also a paper that came out in America that said that you were more prone to get it if you had a certain gene within your makeup as well. But I don't know if that was ever substantiated. They were trying to explain why some people suffered when other people didn't and that was one of the things they came up with. [14] I think it was a combination of all the things that were there and here at the time that possibly caused it.

During this interview with Mark, Debbie had been in the other room. At this point she came into the room and joined the conversation:

[15] Malcolm Hooper did the urine test. Mark did it and all the kids. [16] [He was the] first one to say that Michael [their son] had an allergy to dairy products. Also linked to autism. Michael is totally off dairy and noticed the difference. Coughing all the time since birth. Thought it was asthma, but it was building up phlegm. [...] [17] I think it [GWS] is something with the central nervous system and causes all these things. [...] [18] I don't know much about them [OPs]. It's something that attacks the central nervous system. Could cause Chronic Fatigue and that. So I don't really know enough about it. Do you? [to Mark, who says no]. Mark lived in his lorry, they weren't in tents or anything like that, you know what I mean... not around a lot of it. But DU you were there, you were all over it. [...] [19] It doesn't matter what done it. If they know... recognition [sic], even if they can't cure them, recognition from Drs and GPs that know that it exists. A lot of people still don't think it exists and that's the main thing. If they can't cure you if, which I don't think they can, I think the thing half way to treating the ones who get depressed and that is getting doctors to recognize it. He had one doctor that turned around and said, 'what do you expect when you go to war'. He was very rude. We were so angry with him we just got up and walked out. [...]

[20] I've been thinking about that lately that it might be MMR. But Michael's had it since birth, but MMR they get really young. So maybe it is. [...] Because I've been reading about it. Rebecca [leading NGVFA member] told us about Dr. Wakefield who looks at these things- a gastro... is his specialty. But problems with MMR show that vaccines are a problem. But MMR helps most kids. It helps more than it hurts, so it shouldn't stop. Michael has autism etc., but he also has other things. [...]

[21] Our doctor told us that the children's problems are possibly due to DU; she said that their problems were the same as those found in the children of Iraq. DU causes birth defects, but other people were made ill by other things. [22] I think the concoction of the injections never helped. [23] I do think that. I don't think its one particular element of why Gulf War veterans are ill. And I think that's why it's hard to pinpoint what caused it... [24] I think it was unique in the way that that much went on. I mean it was a rush with people getting the injections, the signals were going out and they didn't get the instructions on the DU.... Also like talk to Mark, he was in the part of the desert where the smoke was that thick and black. Because of the oil... that had to do something... they were out there ten months, not three weeks or six weeks. He went from October to June... that's a long time in the desert.

DISCUSSION

It is clear from this narrative that GWS systems of thought are not unitary. There are, however, a number of dominant themes which are contained in this narrative and reflect accounts of the majority of sufferers. It is extremely relevant that Mark begins his discussion of his illness and its cause by disputing the argument that it is psychological in nature (**1: p.49**)³, the **denial of psychological factors** is central to GWS narratives and will be discussed fully in Chapter Six. Veterans often suggested that any psychological symptoms were chemically induced. Another typical element to veterans' accounts of their illness is that the sufferer initially explained their problems in different ways (**2: p.49**), but then came across other sufferers and through speaking with them their past experiences suddenly made sense and the link to the Gulf War is made (**3: p.49**). An important aspect of this realisation of the relevance of the Gulf War is the exposures themselves: the various exposures are the key to the illness. The Gulf exposures are the starting point, the diagnosis and that which they all have in common. In this way GWS is

³ Throughout this section such a number refers to the area(s) in the narrative that discuss this particular topic. Page numbers are also used to refer to where the area can be found i.e. (topic number: page number).

unique as it is not necessarily symptoms or clinical features which represent the diagnosis, but the cause itself.

Both Mark and his wife mention (4: p.49, 19: p.50) that discovering a cause is not important, yet their focus on the variety of exposures suggest otherwise. They discuss the difficulty in deciphering the exact cause due to the sheer number of possibilities. Although they suggest uncovering which exposure was the culprit is unnecessary, they do ascertain that cause may be important in terms of proving the existence of the illness. Thus, cause is tied up with truth and proof. They later told me about their anger at being told by different doctors that there was nothing wrong with Mark; that his problems were normal. One doctor took every complaint and pointed out why that was normal for someone of his age, much to their anger. They described their complete relief when he was told that he was ill. Although Mark and Debbie say they were not concerned about the specific causes, most veterans are and see it as central to their fight for recognition.

Mark suggests that the cause of the illness is unknown, but that there are a large number of possible culprits. Veterans list each exposure and their contact with them, sometimes going into great detail. Every exposure is a cause of anxiety because of its novelty; it is as though the modernity of the substance itself makes it object of apprehension. **Vaccines** play the dominant role in theories of causation (6: p.50, 22: p.51) and veterans often pointed to scientific studies which suggested a link between self-reported symptoms and vaccinations (Unwin et al 1999⁴; Cherry et al. 2001). They disregard findings which suggest that there is little evidence that vaccination was a cause of veterans' illnesses (MRC 2003). It is often pointed out that injections were the "common denominator;" the exposure which all sufferers have in common.⁵ They are frequently referred to as the dominant, primary and original cause of the illness. Mark, like most other veterans, suggests that the large number of vaccines given over a short

⁴ This is a reported finding from the King's Team. Interestingly, although veterans angrily dismiss most of their findings outright as biased, they will use the findings if they support their understanding of the illness.

⁵ I did meet people who said that there were those who were suffering from GWS who did not have the vaccines and did not go to the Gulf, but claimed other exposures. For example, I met one man who had GWS because, as he claimed, he had worked on the vehicles that had come back from the Gulf that were "covered in DU dust".

period of time is seen as hazardous and likely to be a major factor in their illness. Veterans explain that the body simply could not respond to so much information. When discussing the number of vaccines and the proximity in which they were given, many veterans refer to the recent and ongoing controversy surrounding the Measles Mumps and Rubella (MMR) vaccination. In 1998 a paper was published in the *Lancet* which suggested a link between the MMR vaccine and autism and bowel problems. They believe that the alleged problems with the MMR vaccination were similar to their experience of numerous vaccinations in a short time. Veterans' theories absorb aspects of other issues around. So, as the public debate about the relationship between the MMR vaccine and autism appeared, veterans use aspects of the theory to make sense of their illness.

Veterans refer to the large number of vaccines as "overload" (Chapter 5) and often recounted which vaccines they had. John, an ill veteran and one of the leading campaigners, focuses on experiences during the war to emphasize the danger of the vaccinations, noting that a number of troops became ill as a result of the vaccines and had to be sent home. The fact that a small number of veterans had adverse reactions was often used to emphasize the dangers of the vaccines they were given. There was clearly anxiety at the time of immunization. Irwin et al (1996) remind us that when investigating public understandings of science we must remember that publics have knowledge already. Not only do they build on common understandings about the immune system and vaccinations, but soldiers are amongst the most vaccinated people in the world and are taught about them regularly by the military itself.

Vaccines are seen as the start of a process of deteriorating health. The injections given to soldiers made them vulnerable and the other exposures simply added to this initial degradation of health. This theory applies well-known medical understandings of vaccinations and the immune system. Veterans also use their own personal experience to build upon this theory. For example, they point out that some experienced flu-like symptoms after being vaccinated, emphasizing that their immune system was diminished; as John and his friend Jack, another ill veteran explain:

John: I personally believe that the vaccines and the medication we were given were the first insult to the immune system and anything else after that was secondary. And whether those people that were insulted at the time their immune system didn't recover in time to react against the organophosphate compounds that were in the air. Or indeed, DU. Maybe the younger people their immune system did recover to give them protection.... Mostly a case of exposure as well. Some people were more greatly exposed than others. And some suffered more extreme stress at the time.

Jack: The initial assault being the injections. We have people that were, for example, who were in Cyprus, or indeed in the UK that were given injections and were subjected to that regime because they were due to fly out. Eventually they didn't fly out and they have come down with the majority of the illnesses.... Didn't have DU or oil well fires that have come down with a lot of the problems. So, like John said earlier, a lot of people were made worse by the injections, some were made worse by the DU, some were made a bit worse by the oil well fires. If your name were lucky you got triple whammy. But certainly I think the major area to look at, again, I'm not a medic, I'm just a simple gunner, is the injections because that is the common denominator with people in UK, Germany or Cyprus that never set foot out there. [...] I think the injections were like pushing a start switch. That's started a series of events in motion, which was then further exacerbated by things in the air, by depleted uranium, by oil fires, by whatever. But I think that initial start switch, I think initially was caused by injections.

The centrality of vaccinations is key to the inclusive GWS explanatory system as it enables people who did not go to the Gulf who are ill to be included: it makes the incoherent coherent.

Central to this argument of accumulating dangers was the immune system. The role of the immune system in GWS explanatory systems will be explained in depth in Chapter Five. However, it is important to explain at this point that vaccines were seen as the initial assault on the immune system, leaving many open and vulnerable to further assaults in the form of exposures such as DU, oil fires and NAPS tablets. However, although veterans believe some people could become ill because of the injections alone, most stated that they believed that those who had been to the war were more ill due to additional exposures.

Mark includes **NAPS tablets** as a likely causal feature of his illness and points out that they, too, were untested and unlicensed (**8: p.50**). Veterans are well aware of the scientific qualities of NAPS tablets as they were described to them prior to the war: they are aware that they affect the nervous system and veterans develop this scientific theory to develop their understanding of the cause of their illness. Debbie, for example, suggests that she thinks GWS involves the Nervous System (**17: p.50**). When NAPS tablets are implicated in the health problems of veterans, the suggestion is that the compound had penetrated the central nervous system. If a nerve agent does not kill, it can injure and cause psychological and behavioural alterations: fatigue, mood swings, forgetfulness amongst others (Wheelwright 2001). Thus, Pyridostigmine Bromide (PB), the active component of NAPS, particularly in combination with other chemicals, may have done something similar to troops over a longer period. The suggestion is that psychological aspects of GWS might have a neurotoxic explanation. This ties back to the belief that their psychological symptoms and diagnoses of PTSD are likely to be chemically induced (**1: p.49**). Veterans also use NAPS tablets to make sense of what they see as neurological symptoms, like pins and needles and clumsiness, and it is further combined with theories involving OPs, which will be discussed below. We can see here how veterans' theories are complex, overlapping with other aspects of their system of thought in order to make sense of a whole range of issues.

Veterans develop their theory by using past experiences. Central to this is the fact that NAPS tablets had given them a number of unwelcome side effects during the war such as: diarrhoea, stomach upset, constant need to urinate, constant erections/ inability to get an erection. Rumours about NAPS tablets circulated during the war and many veterans reported feeling anxious about them. Indeed, a number of my informants stated that they stopped taking them because of the adverse side effects. Another contentious issue surrounding the vaccines and NAPS concerned their unequal distribution. Veterans and their advocates suggest that officers and aircrew did not accept all the preventative measures that the lower ranks were forced to take. Many aircrew did, indeed, not take NAPS tablets because one of their side-effects was frequent urination, something that would have made long air trips unworkable. This unequal distribution helps to explain, at

times, why some were ill and others were not. Furthermore, it explains why so few officers were ill with GWS. Studies have shown that those from lower ranks are more likely to suffer from GWS and this aspect of the system of thought is able to respond to this finding. NAPS tablets and the vaccinations in the end, were not needed, for nerve agents were not used by Saddam Hussein and this may have added to the subsequent anxiety surrounding them. There is the sense that they were an unnecessary, unused substance remaining in the body.

Discussions about NAPS tablets often overlap with concerns about **organophosphates** (chemical weapons, pesticides and insect repellants) because these compounds work in similar ways upon the nervous system. A number of insecticides were used during the Gulf War and were focused upon early in investigations into GWS. In their narrative, Mark and Debbie suggest that OPs are not a real concern to them and do not play a role in their theory of causation (**18: p.50**). This reveals the very individual nature and flexibility of GWS systems of belief which are based on individual ideas of risk exposure. Having a different theory of causation from others is acceptable within the system, as long as your theory points to one or more of the exposures. It is a complex system with people able to pick and choose. Although Mark disregards the relevance of this exposure himself, OPs remain an important factor to others. No one thing affects all sufferers, it is a closed system in this way as it cannot be contradicted. Ann, an ill veteran, emphasises the role of OPs amongst other factors in her narrative:

The other thing, I looked after a lot of evacuees and a lot of our lads as well who, the evacuees literally were covered in, they had been de-loused so they were covered in organophosphates powder and God knows what else. The lads came in from the front, their clothes were covered with what could have been sand, but we don't know what else so we bagged their clothing.... I think, again that the vaccines have caused this, or even the organophosphates... And I think umm, that there may be something, maybe and again it hasn't been proven, but this squalene thing sounds like there was something that may have been added to boost our immune system.... Because I think when I look at civilians, there is a lot of CFS, there is a lot of fibromyalgia. It's not just us that's got this. And for some of them, just for example, the organopoisn phosphate [sic], the organophosphate poison farmers, the sheep dip. That's a big thing at the moment.

At a later stage of the same interview Ann mentions two scientists to support the theory that organophosphates were involved in GWS. She points to the fact that one of these papers was published in the *Lancet* as further proof of its claims to expertise; veterans often refer to specific papers and particular scientists. Ann's narrative reveals the chaotic nature of theories of causation: there are just so many factors, so much information, and so much at stake. She also shows the way in which these systems of thought constantly accommodate outside information and link it to a grand narrative. Thus, she connects the high incidence of CFS, the sheep dip-farmers movement amongst other things with her illness and GWS.

The concern surrounding exposure to OPs was introduced prior to the Gulf War and veterans encapsulated relevant themes into their understanding of the cause of their illness. In the UK "sheep dip farmers" had received a great deal of media coverage and the peril of OPs were well-known to the public. Indeed, a number of advocates for GWS became involved through their dealings with OPs. The problems reported in farmers were the result of OP poisoning occurring after accidentally high contact with OP pesticides, either inhaling the vapour or spilling liquid on their skins. In the Gulf War there had been no reported cases of acute organophosphate poisoning. Instead, some researchers believe that a milder form of OP neuropathy affected the veterans, an exposure not characterized by any acute symptoms at the time. Or if there were symptoms, they were interpreted as flu, effects of vaccines, or stress of war. The belief is that organophosphates are not only toxic in themselves (Jamal et al 1996; Jamal 1998; Haley et al 1997a), but interact synergistically with other pesticides, multiplying the overall toxicity of these compounds (Abou-Donia et al 1996, 2000; Abu-Qare et al 2001).

Veterans often speak about Robert Haley, the leading proponent of neurotoxic injury and one of the most heralded and respected scientists within GWS circles, who advocated this theory and focused on the issue of delay in OP poisoning. His theory is that low levels of these chemicals had injured the soldiers' brains. Chemical weapons are a causal feature in Haley's theory of GWS: linked to when nerve gas was released when the US bombed

Iraqi weapons plants on the fourth day of the Gulf War⁶. Haley put 23 sick veterans and 20 healthy ones through detailed scans and said he had detected damage to the “deep” part of their brains. Haley stated that GWS was due to brain damage from sarin; furthermore, he introduced a genetic element to his theory suggesting some became ill and others did not because some lacked a common enzyme that protects the body from those toxic chemicals.

In January 1997 the *Journal of the American Medical Association (JAMA)* published three of his papers in the same issue and Haley immediately was at the centre of the Gulf War debate. Although welcomed ecstatically by veterans and their advocates, Haley is highly criticized by the mainstream scientific community involved in GWS research. He was charged with recall bias and selection bias as he had confined his sample to a suggestible, high-profile reserve battalion called 24th Navy Seabees. Haley used a small number and had not used a control group, a fact which greatly diminished his findings, according to his critics. It was also suggested that the neurological differences between the sick and the healthy study participants was due to other factors such as chemicals at their civilian jobs, or personal habits such as drinking, anxiety or depression (Wheelwright 2001).

Another GWS scientist who focused on OPs as the cause of GWS was Mohammed Abou-Donia who suggested that DEET, PB, and permethrin were more toxic to animals when administered together than when given singly. Critics point out that both Abou-Donia and Haley were funded by Ross Perot, the suggestion being that this may have meant they were biased. Perot, the Texan millionaire politician, had become interested in the veterans’ cause when he was running for President of the United States⁷. It has been

⁶ Pentagon reports deny Haley’s assertion. They say that no Iraqi chemical weapons were bombed on the fourth day of the war and that any bombing on that day was more than 200 miles away from the group Haley studied.

⁷ Throughout the thesis I use material from both UK and non-UK sources. Although it is wrong to assume direct comparisons, I believe these sources can shed light on the issues raised. Importantly, GWS appears to be quite similar in the countries where it has appeared (Canada, US, UK, Australia) and it is from these countries that I use additional material. Furthermore, militaries can be seen as sharing cultural characteristics and these particular militaries are often in contact and share experiences. Veterans themselves move fluidly between UK and other sources and GWS itself is a product of a dialogue between these various arenas.

suggested that it was in his interest to be seen to support veterans and their battle for recognition of the illness and, thus, those researchers he supported financially would do so too. However, this argument reflects the veterans' and their supporters' belief that any work paid for by the US Department of Defence or MoD is biased towards the opposite: disputing the existence of GWS as a unique disease category.

One exposure which is missing from Mark's narrative is **chemical weapons**. Although he and his wife do not mention it, exposure to chemical weapons was often included in veterans' theories of causation. At the AGM Malcolm Hooper went into detail about the various exposures and causal theories. He spoke at great length about Haley and his work, saying that Haley had found a genetic link in that some people were more susceptible to things like sarin:

Oops, we weren't exposed to sarin gas, says the MoD. The Americans have now admitted that they were. We are still playing silly buggers at this, sorry about the language, but I just get so cross. I'm preaching tomorrow as well so I'd better be careful [everyone laughs]. But these are the sort of things that we are seeing. 'Oh, there's no evidence that we were exposed to sarin gas'. What about all the alarms that went off? 'Oh, they didn't work'. Why did you buy them then? Why did you claim there was no exposure if the alarms went off anyway?

Concerns about chemical weapons were more often expressed through reporting of the frequency of the NAIADs (the alarms used to detect chemical weapons) sounding. Chemical weapons alarms went off frequently during combat and were regularly ignored, something that many veterans use to support their theory. However, it was later suggested that the alarms were too sensitive and reacted to things like jet fuel. It was reported that nerve gas was noticed by Czech military teams on Jan 19 1991: 2 days after the beginning of the war on the ground. Five days later, the same teams detected mustard gas (*The Economist* 1997).

Many veterans referred to the 'Kamisyah incident'⁸ and in some cases showed me a map which detailed the "plume" and where they had been located in relation. Importantly, John's 205/32 Field Hospital was said to have been located in an area which was near the plume; thus, the link between the illness, that particular field hospital and the veterans' association was strengthened. However, the plume diagram kept changing and veterans complained if the updated plume left them out of the area. The Kamisyah incident added much fuel to the GWS fire, particularly to accusations of cover-up. The incident was first reported on the front page of the *New York Times* and other papers on June 22 1996 (Wheelwright 2001), five years after the war. The reports referred to the fact that the Pentagon had disclosed that troops may have been exposed to nerve gas shortly after the war when an army unit blew up an Iraqi ammunition depot that contained rockets armed with chemical agents. The revelation was immediately linked with a possible explanation for GWS. However, this theory is not absolute, as it did not explain why those who were not near the incident are reporting similar symptoms.

Despite focusing on his location in the Kamisyah plume, his exposure to chemical weapons and endorsing Haley's theory; at one stage John completely dismissed the role of chemical weapons. He told me that initially he had suspected chemical weapons, but now dismisses that theory in favour of issues like DU. The shift in theory, he suggests, was due, in part, to the increased focus on DU in the media due to Bosnia and Kosovo; but also because he had come to accept that had chemical weapons been released people would have died at the time. This dismissal of chemical weapons contradicts Haley's theory, outlined above. We can see the way in which veterans use different, often contradictory theories at different times. Veterans use part of Haley's theory to develop their own, ignoring other parts which did not fit into their model. It must also be noted that when veterans were advocating Haley's work they did so seemingly without awareness that by doing so they were contradicting other theories, for Haley's theory suggests that DU, vaccines and oil fires are not factors in GWS. Although veterans and

⁸ The Khamisiyah incident refers to March 4 and March 10 1991 when the Khamisiyah ammunition depot was detonated, probably releasing sarin into the air. Deadly levels were not attained and no gagging or gasping by the US troops on the scene were reported. When details about the incident were first reported

Hooper often refer to Haley, they mainly focused on his “proof” of brain damage and their links with psychological symptoms.

Depleted Uranium is mentioned by both Mark and Debbie as a likely cause of Mark’s illness and the cause of the children’s problems (9: p.50, 21: p.51). Indeed, Debbie reports that one of her doctors made the connection between the health problems of the children, the problems found in Iraqi children and DU. DU is most commonly cited as the cause of birth defects and reproductive problems of veterans and their partners (see Chapter 7). DU was used as “tank busting” ammunition by US and UK troops, thus, it would seem that only victims of the friendly fire incidents were at risk from direct DU exposure. However, many veterans believe that they were exposed to depleted uranium in a more indirect manner. Veterans suggest that they had “breathed in or ingested” DU dust as a result of coming into contact or handling victims (friendly fire or Iraqi). The other suggestion is that there had been a large, unknown amount of DU in the general atmosphere as a result of the ammunition. Often, contact with DU involves discussions of the enemy and the Basra Road incident.⁹ As Jack describes:

I mean, I was on an armoured reconnaissance regiment and we had some DU shells which we weren’t warned about. Once the war had finished we were on the Basra high road and some of our lot was responsible for burying bodies etc; and again, without being ghoulish, once any conflict like that has happened, one thing you do is you look over war trophies. Now, we were...because it was the first chance to look up close at various military tanks, armoured cars, armoured personnel carriers etc; we were clambering all over these vehicles: one to look at the vehicles and two to bring back...whether it be a helmet or whatever. And we were clambering all over these vehicles that had been hit by DU but we didn’t have clue.

Souvenir hunting and being on the Basra Road implies contamination by DU. In reference to DU, Mark said that those who were ill as a result of coming into contact with DU as a result of souvenir hunting, “deserved it”. Some combine discussion of

400 veterans were said to be at risk. Later, the number was raised to 1100, 5000 and then 21 000. The fact that it took so long for the American government to disclose the event added to accusations of cover-up.

⁹ At the end of the war American planes had attacked a mass exodus of Iraqis trying to escape in any vehicle they could, including: tanks, ambulances and ordinary cars. The result was a mass of dead and burnt bodies and burnt-out vehicles (de la Billière 1992).

psychiatric problems (PTSD) with a discussion of depleted uranium. The trauma of handling dead bodies are entwined with the DU on the same bodies.

If one were to look on the associations' websites, the various causal theories are outlined. On one website Hooper goes into great detail explaining the role of DU in the illness:

Undoubtedly DU exposure has contributed very significantly to the illnesses now suffered by some GWVs, their families, and the civilian population of Iraq including the unborn.... There is a 250,000-fold excess of babies born without eyes in a study from Baghdad, De Sutter, 2001. Research commissioned by the GWVs themselves has shown that some of them are still excreting DU some 8-10 years after the Gulf War, Durakovic¹⁰ et al, 2002. This clearly indicates slow elimination of DU from internal body stores that were laid down in 1990-1. The cumulative internal radiological dose from that date is thousands of times the allowed dose advised by the national and international agencies, Busby, 2000.... Environmental damage is also extensive with grossly deformed plants and animals being reported.... Cancers expected as a major consequence of internal exposure to DU are lymphomas, leukaemias, lung and kidney cancers.

The above discussion by Hooper is extremely important as veterans look to him as the supreme expert in GWS issues, as will be discussed below. DU is linked by Hooper to cancers and birth defects and he explains that DU remains in veterans' bodies and is slowly being excreted out, something which is testable. Ann reports:

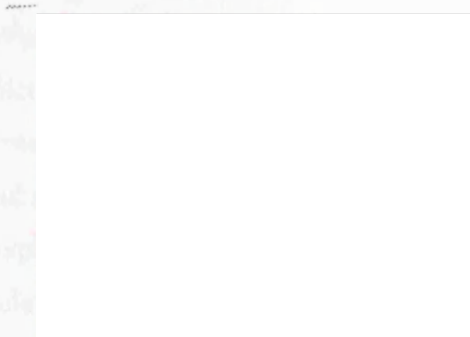
It's a scientific fact that I've been exposed to depleted uranium. I was tested in 1998 by Durakovic and this was showing levels that were over 100 times the safe limit of what I should have been exposed to over the period of a year. And this was several years after I had been exposed. I've had chromosome aberration test done in Germany. And low-level radiation expert saw a result that showed three times the biological damage as the residents of Chernobyl showed at the time of the disaster. That's a scientific fact.

¹⁰ Durakovic is a scientist involved in GWS who studied UK Gulf veterans and reports that he found that some of the sick were excreting DU in their urine. He further suggests that this could be causing GWS (see Durakovic 1999, 2001).

Ann mentions the name of a scientist who was very much involved in the GWS movement and who focused on DU as the cause of the illness. Chernobyl is often referred to in discussions about DU, as veterans absorb other theories. The link between radiation, Chernobyl and DU is further developed into belief systems about GWS and problems with offspring. Above, Hooper suggested that DU is radioactive and would remain in Iraqi land, continuing to harm civilians and the environment. As John noted,

What I know about DU, the considerable lack of knowledge with regards to chemicals exposure we had and that and what side-effects could be cause... it's a carcinogen... depleted uranium is a heavy metal toxin and its chemical compound, and it's very worrying.... DU has a chemical half life, a biological half life of, 500 million years, so it has nowhere to go. And I think that's an issue.

In his long list of causal features of his illness, Mark presents **smoke from oil well fires** as something he was exposed to and a contributory hazard (10: p.50). Oil well fires were regarded as the first culprit of GWS, but soon lost favour as anything but a subsidiary danger. Most of the veterans I interviewed listed a number of exposures and oil fires were amongst them, yet exposure to oil fires remains minor feature. Many veterans would, however, describe their experience of the fires saying "the sky was black," "day turned to night" to emphasize their experience of exposure.



Oil well fires in the Gulf

One theme that emerges repeatedly in the above narrative is assertion that the combination of the exposures is a likely culprit in the illness (5, 12, 14, 23, 24). Although each substance is seen as new and therefore dangerous, the uniqueness of the

unknown combinations of these substances is also a cause for concern. As mentioned above, many of the theories involve the notion of synergism. Most veterans stress the role of the “**cocktail effect**” of the various exposures. Hooper constantly refers to the Gulf War environment as totally novel; “the most toxic war” and describes the atmosphere of the Gulf as “a witch’s brew of toxins.” The image is of a toxic soup, with a number of dangerous and unknown substances mixing together, creating new and even more dangerous materials. Importantly, it is suggested that all the possible combinations could never be fully researched, leaving the cause of GWS out of reach. Since there were so many possible combinations, and possibly different combinations affected different people, the cause remained elusive. The sheer number of possible combinations of exposures and their different and unique effects on individuals means GWS theories of causation are fairly impenetrable.

When listing all the possible factors which may have caused his illness, Mark mentions the adrenaline in his body (11: p.50). Many veterans add other non-exposure factors which may have contributed to the illness, possibly by combining with the other exposures. Veterans mention the heat, the NBC suits, dehydration, lack of water, lack of alcohol, and possible unknown entities like viruses and diseases as potential contributory factors; adding to the already abundant and complicated theories.

When discussing the long list of possible explanations for his illness, Mark mentions the fact that he was given unlicensed drugs (7: p.50). This is a theme which dominates most veterans’ accounts of the cause of their illness. Veterans emphasise the newness of the substances and that some of the exposures were **untested, unlicensed, secret and experimental**. They tie this into discussions of the way in which medical and other relevant records were not kept or lost and to grander conspiracy theories. As this discussion with John and Jack reveals:

John: The deliberate loss of medical documentation, the destroying of medical documentation...

Jack: Other wars have [lots of paperwork], so obviously the MoD and the government know that things happened in the Gulf that shouldn't have happened. Either there were exposures that we shouldn't have been exposed to or we were given stuff that we shouldn't have been given. And so they went out systematically, methodically destroying documentation.... The doctors can't treat you because they aren't aware of what you've been given. And, in fact, because they are withholding information from doctors, doctors could, technically, prescribe us with something that makes us even worse.

John: Vaccines were not licensed to be used in the UK because of the contradictory effects... according to all the rules and regulations at the time, it was an erroneous prophylactic programme that they gave us. And they shouldn't have done it. They were advised by the Department of Health not to give us those vaccines in that manner... should not have given perutussis [sic] in conjunction with the anthrax vaccine.... The recommendation on that clearly states, 'not for adult use'. The vaccines and medication were experimental. Never been used before.... It was the first time that the vaccines were given, vaccines that were classified secret were given, anthrax and perutussis [sic], the first time they were given, in conjunction. The first time that NAPS tablets were given.... Depleted uranium: the first time that had been used in a war. The first time the British army and the United States had used it in a battle environment.

Jack: Again, it was experimental in the Gulf. Like a lot of things, like the injections, like the NAPS, like so many other things. [...] The first time people had come into contact with oil well fires. Possible other contamination with Iraqi chemical works being destroyed. First time that people have come into contact with those sorts of materials. [...] DU was experimental in the Gulf... um but again it's an experiment. What better way then try out all your experiments, your new injections, your new toys, your new weaponry, what better way to have a real live war? Great, it's not on our doorstep we're not going to be affected anyway. If we go in and if we affect the country so what?

The notion of the war as a large-scale experiment ties in with the title of this chapter; veterans see themselves as guinea pigs, lab rats upon which the government could do as they pleased. Concerns about the untested/ unlicensed nature of the preventative measures developed from information they received. NAPS, for example, were not licensed for specific use in warfare at the time the Gulf War, although it is now. However, PB has been successfully used since 1955 to treat men and women suffering from the neuromuscular disease myasthenia gravis. The belief in a conspiratorial

experiment is further strengthened by many veterans' assertion that officers, pilots and the Special Forces did not take the same medication as other soldiers. Thus, issues of class and rank are tied up in discussions of the illness and help veterans to make sense of the statistics which report that officers are unlikely to suffer from GWS.

John claimed that some units were clearly being monitored as part of an experiment:

At the end of the war there was a RAF medical unit going around from unit to unit and asking about NAPS tablets and effects, side effects. Also, some of the units were bled.... Blood was taking off them after the war, while they were still there. And some of the units were bled before they went out. So, particularly 205, for instance, the general hospital: that was bled before it went out. Bled after the ground war, before they all came back. To see what the uptake was on the vaccines and at the end of it, which is an experiment. There is no two ways about that. That is an experiment.

The issues of novelty and secrecy often involve specific examples in veterans' accounts. The interviews from which I have taken these narratives were conducted early in my fieldwork. Theories are constantly changing and adapting, whereas John briefly mentioned a substance called "squalene" as a possible factor, Mark and Debbie did not mention it at all. Squalene was to take a major role in theories of causation a few months later. Concerns about the role of vaccinations in the illness took a new trajectory as veterans became aware of a substance called squalene. During the association's Annual General Meeting (AGM) in March 2002 much of the formal and informal discussions focused on squalene. A persistent allegation about the vaccination programme is that this substance was added as an adjuvant to the vaccines. The US and UK governments have denied the use of squalene¹¹ in the vaccinations. However, in 2000 a Tulane University researcher, Pam Asa, claimed to have found antibodies to squalene in veterans' blood. The reason for this current interest in squalene was largely due to a recent media story and the presence of its subject at the AGM. Gwen, a non-deployed ill veteran, had been the subject of a television broadcast about GWS and vaccinations. The programme took

¹¹ A naturally occurring substance, squalene is produced by the liver to help metabolize cholesterol. It is found in shark liver oil, some vegetable oils, cosmetics and various nutritional supplements. It is also used as an adjuvant in some vaccines.

Gwen to meet with Asa in the US and filmed her as she tested positive for squalene antibodies. When the programme was aired the NGVFA got in contact with Gwen and she became a member of the association.

During the AGM an information sheet on squalene was made available. It said:

What makes Gwen unusual apart from her diagnosed Gulf War Syndrome, is that she never actually deployed to the Gulf... Thereby proving beyond a reasonable doubt that the vaccines made so many of us ill and not chemical weapons or environmental factors. Particularly not the stress of battle!

The information sheet also quoted Asa as saying that her findings ruled out the alternative theories of causation for GWS, something which was not taken up further by veterans as they continued to simultaneously hold theories which involved other exposures. During the AGM one of the main interests was the taking of blood from participating veterans in order to test for squalene antibodies.

Genetic factors are introduced as a causal agent in Mark's narrative (13: p.50); he refers to a specific paper which suggests this. As mentioned above, genetics are seen to contribute to GWS, outlined in Haley's theory. Given the central role of genetics in understandings of disease in Western culture, it is not surprising that veterans embed their understanding of their condition in genetic theories. Ann presented a long, jumbled list of causes of her illness and amongst other factors suggested a possible genetic contribution, but introduces a different scientist to support her claim.

The MacNess team...found was that all the Gulf veterans, regardless of how many symptoms they had had a 50% reduction in this paronoxinase. Which detoxifies organophosphates. And what is it? It's an enzyme. And we have genetic differences in them. So that in some ways explains why some people got sick and some people didn't get sick.

In her discussion, Ann suggests a genetic pre-disposition or vulnerability to organophosphates and refers to a scientific paper written by one of the 'sympathetic' researchers to support her argument. This one part of her overall theory provides a grand

narrative which makes sense of and links a number of factors. In so doing she points to scientific studies and experts, rooting her language in a very medical world.

Veterans encompass other theories and beliefs from the world around them into their system of knowledge, as we have seen above in including a genetic reading of the condition. Mark and his wife also discuss food allergies and autism as linking with GWS (16: p.50) as well as discussion the MMR debate (20: p.51). They draw on scientific understandings present in the wider world to construct a full picture of their illness. Importantly, MMR, food allergies and autism have all received a huge amount of media and public attention over the past few years; making them accessible theories with which to work. Thus, many veterans and their children have been put on special diets, saying they choose dairy-free and gluten-free diets. The reason for this is that advisors such as Hooper and his colleague Paul Shattock have suggested a link between vaccinations, gut permeability, autism, and sensitivity to certain foods. Importantly, both Shattock and Hooper were working on autism, vaccinations and gut permeability prior to becoming involved in the GWS movement.

RISK

Veterans see the world as full of risk. GWS narratives are saturated with discussions of risks in the form of chemicals, toxins and viruses. These risks are central to their theories of causation: Gulf War exposures rendered them ill and leave them vulnerable to other hazards. Like many of us, they are far more likely to view symptoms as pathological and interpret them in a medical rather than a social or normative context. The popular belief is that the physical world is a potentially hostile, toxic place, full of chemicals, toxins and viruses that are eroding health and well-being. GWS should be seen against the background of larger cultural trend which has witnessed an increasing anxiety about health and a heightened link between identity and the body. Although objective indices of health have improved during this century, surveys suggest that modern man feels less well and experiences more symptoms than in previous generations, something which has become known as the paradox of health (Barsky 1988; Barsky and Borus 1995).

Modernity “is a risk culture” (Giddens 1991:3). The concept of risk has become fundamental to the way both lay actors and technical specialists organise the world (Giddens 1991:3). In the contemporary Euro-American context, risk is impossible to ignore and is central to understanding health beliefs and behaviours. Three social scientists have written extensively on risk: the sociologists Ulrich Beck and Anthony Giddens and the anthropologist Mary Douglas. Both Beck and Giddens see the world as entering a new phase, which they respectively label ‘*reflexive modernisation*’ and ‘late’ or ‘high modernity’. Risk is central to this transformation with new risks being introduced that other generations have not had to face consciously.

Beck and Giddens emphasise the trend toward individualisation in late modernity, but Douglas’ work focuses more on the social nature of decision-making in respect to risk. In this way, points out Caplan (2000), the way people deal with risk appears closer to Douglas than to Beck and Giddens. My work has revealed that the process by which people assess dangers is very much a social process, negotiated between individuals and institutions. Furthermore, it is constantly re-assessed and re-negotiated as veterans are confronted with new information and experiences.

As her work on the subject is a continuation of her work on purity and pollution (1966), Douglas also introduces morality in the understanding risk and danger. She argues that distinguishing something as a risk is a way of making sense of the world as well as a method of keeping things in their proper place. Risk in our culture plays an equivalent role, Douglas states, to taboo or sin, but it acts in the opposite way: it protects the individual against the community.

Being ‘at risk’ in modern parlance is not the equivalent but the reciprocal of being ‘in sin’ or ‘under taboo’. To be ‘at risk’ is equivalent to being sinned against, being vulnerable to the events caused by others, whereas being ‘in sin’ means being the cause of harm. The sin/taboo rhetoric is more often used to uphold the community, vulnerable to the misbehaviour of the individual, while the risk rhetoric upholds the individual, vulnerable to the misbehaviour of the community (Douglas 1992:28).

Those that put others at risk are acting immorally. This feature of risk assessment is linked to the way in which blame is designated and explanation is found for misfortune and illness. The blaming system:

We are in now is almost ready to treat every death as chargeable to someone's account, every accident as caused by someone's criminal negligence, every sickness a threatened prosecution. Whose fault? is the first question. Then, what action? Which means, what damages? What compensation? What restitution? And the preventative action is to improve the coding of risk in the domain which has turned out to be inadequately covered. Under the banner of risk reduction, a new blaming system has replaced the former combination of moralistic condemning the victim and opportunistic condemning the victim's incompetence (Douglas 1992:15).

It would seem linked to this new focus on risk that we are largely unable to accept chance. As we see in veterans' narratives, every illness or misfortune must have a cause and someone must be held accountable. Institutions and large corporations are generally seen to be immoral and risky in that their practices put others at risk and it is towards them that we point the finger of blame. The MoD put veterans at risk by injecting them with and exposing them to harm, even by the very nature of sending them to war. Mobile phone companies, the government, drug companies: all are responsible for putting us a risk and making us ill. Someone is responsible. It is in this way that people develop chains of causality.

Douglas continues to note that we have witnessed a change in the meaning of risk; the concept now only means bad risk. Those institutions and apparatus that were once seen as benign, or even beneficial are now seen as potentially harmful. Risk, says Douglas (1992), is invoked as a response to the abuse of power. "For those purposes *danger* would once have been the right word, but plain *danger* does not have the aura of science or afford the pretension of a possible precise calculation" (Douglas 1992:24).

Perceptions of risk are often linked with past experiences and theories of causation. Cohn (2000) argues that as science is increasingly replacing mechanistic models of the body and illness by new interrelated discourses of environment, immunology and genetics,

there is growing lay frustration with scientific explanation. People experience the diffusion of cause and ‘thereby the disappearance of an elementary moral resource’. Cause (and blame) is no longer straightforward. Cohn further argues that chronic illness illustrates how biomedical concepts of causality are now imbued with a broader theme of uncertainty.

Critics of Douglas and Wildavsky have pointed out that they reduce real risks to metaphor and, by so doing, eliminate danger all together (Kaprow 1985 in Caplan 2000). Hacking (1982) says, “*Risk and Culture* sometimes hovers near the anthropological fallacy of thinking that everything we perceive is a cultural artifact. Every once in a while the reader has to cry out that some pollution is real.”

As Douglas (1992) suggested, the new concern with risk is partly a backlash against the great corporations (Coleman 1982 in Douglas 1992). Indeed, it would seem that faceless, large institutions, like the MoD are seen as inherently dangerous and risky. The “political pressure is not explicitly against taking risks, but against exposing others to risk” (Douglas 1992:15). Gellner (1984) has convincingly argued that our moving to a global society is at the heart of the centrality of risk in modern life. Modernity is characterized, he says, by new social relations as we move from the local community to larger national and international spheres. Weber wrote of the ‘iron cage’ of bureaucracy (1930:181). Douglas suggests that “liberation from the small community also means losing the old protections. The markets suck us (willingly) out of our cosy, dull, local niches and turn us into unencumbered actors, mobile in a world system, but setting us free they leave us exposed. We feel vulnerable” (1992:15). What becomes the focus of this vulnerability: invisible and ever-present dangers such as toxins and chemicals. Thus our late twentieth century/ early twenty-first century malaise is blamed on viruses and toxins with the ultimate bearer of responsibility wrestling with large institutions.

It is necessary to see GWS and the veterans’ concerns in context. The veteran’s view that the world is full of risks is not unique to their plight. Over the past decades there has been the increasing perception that risk is ever-present and is in the form of invisible

viruses and toxins. As a result of the 1960s nuclear testing, people became increasingly aware of environmental risks. One of the most important works of nonfiction to be published in America in the past century (Wheelwright 2001) and influential in this movement was *Silent Spring* (1962). Rachel Carson, a biologist and writer whose interest had been marine science suggested, that pesticide sprays were “a kind of fallout.” This book started a national movement that continues to gain strength (Wheelwright 2001). She strongly asserts her position: “In this now universal contamination of the environment, chemicals are the sinister and little recognized partners of radiation in changing the very nature of the world- the very nature of life” (Carson as quoted in Wheelwright 1002:177). Carson suggested that pesticides had harmful and chronic effects owing to their magnification in the food chain. Seizing “upon the hidden durability of the new compounds, Carson drew conclusions for human health that scientists are still trying to verify. She predicted there would be genetic adulterations and widespread malignancies from people’s exposure to chemical toxins” (Wheelwright 2001:177).

CONCLUSIONS

This chapter has mapped out the veterans’ theories of causation. The veterans’ theory of the cause of their illness is not unitary and consists of a large number of possible explanations. Although there seems to be a finite number of advanced exposures, the different combinations provide a vast array of possibilities. Furthermore, individual differences both in terms of exposure experience and bodily composition add to the inclusive theories. In the Euro-American context in which GWS emerged there has been an increased focus on risk, with a specific emphasis on the way in which toxins and chemicals impact health. An important characteristic of risk assessment is the way it allows for blame to be assigned. When veterans try to make sense of what caused their illness they present a series of possibilities, sometimes with conviction and sometimes with uncertainty; but the one thing they are certain of is that the Gulf War made them ill.

CHAPTER THREE: CHAINS OF CAUSATION; CHAINS OF KNOWLEDGE

INTRODUCTION

This chapter continues to explore the themes contained in GWS explanatory model(s) and meaning system. I will be referring back to and adding to Mark and Debbie's extended narrative found in the previous chapter and supplementing it with data from other veterans' accounts. The issue of cause is central to GWS theories; but there are levels and chains of causality, which provide a great deal of flexibility. Contained in these narratives is a search to make sense of a variety of experiences: a search for meaning. Questions about information, knowledge, truth and expertise are woven throughout veterans' narratives and are impossible to separate out from the issue as a whole.

CONTESTED KNOWLEDGE

Giddens (1991) and Beck (1992) argue that a fundamental characteristic of modernity is that faith in science and scientists has been eroded. Knowledge is contested. In reflexive modernity people are no longer content to accept the truth claims of scientific knowledge. Instead, they subject them to scrutiny and criticism. Furthermore, science itself is divided in terms of what constitutes a risk, making the public more uncertain. There "is substantial, sometimes radical, disagreement within the medical profession about risk factors as well as about the aetiology of major health hazards" (Giddens 1991: 121). These issues are central to understanding GWS and its system of belief. People do not trust experts because they themselves generate anxiety (Beck 1992). Late modernity is characterised by a critique of the concept of modernity whereby they are seen no longer unproblematic (producing goods) but instead are seen to produce many of the 'bads' from which we feel threatened. The central institutions of late modernity are seen as the main producers of risk (government, science, industry). An emphasis on risk, Beck and Giddens assert, is thus an integral feature of a society which has come to reflect upon itself, to critique itself. Risks produced under late modernity have increased in magnitude and become globalised and thus more difficult to manage and avoid (Lupton 1999).

There is such an abundance of information that it is impossible to absorb it all and, yet, there is so much that one is able to pick and choose: utilising that which fits into the model we construct. Douglas (1992) has shown the way in which misreading “evidence was an important theme in the history of science, where the same evidence was sometimes used to support alternative theories” (p.8). In her article on a Gulf veteran, Fortun (1999) suggests that in the social context of GWS there is a huge amount of information, “yet also abundant suspicions that available information is incomplete or even fraudulent. It is about extraordinary desire for understanding, coupled with keen awareness that the complexity of the issues defies the possibility of expert comprehension” (p.344).

During the interview with Mark and Debbie, they discussed systems of knowledge and expertise. In this section I focus on the construction of knowledge of GWS and the creation of knowledge networks. The following excerpt continues on from where the interview with Mark and Debbie left off in the previous chapter. Mark explained,

[25] It seems to be the older people who seem to be suffering that bit more... I think the problem is that we are not at the same stage. It seems to effect different people different ways. If you see the veterans in Blackpool and that you see that a lot of them, and again, it's not people who knew each other in the Gulf or knew each other before they went to the Gulf.¹

On the whole I think GPs are frightened to put their head up and say this could be a Gulf War issue. [26] Um, he relies on us for a lot of things and we rely on word of mouth of other people who might have seen a doctor who was sympathetic, or who was quite good. [27] [We mainly rely on] Other veterans, basically. [28] The neurologist in Glasgow whose is backed by the NGVFA and they are in touch with Dr. Jamal in London. He was at Glasgow. He had quite an interest in it. But for some unknown reason he got his funding withdrawn in Glasgow and that's how he ended up in London. But he knew Dr. Cleaver who is the other one... but he is the one who, he is a specialist in Chronic Fatigue, but he sees a lot of similarities between the Chronic Fatigue and the Gulf War patients. So he

¹ See Chapter 6 (page 161) for a discussion of veterans' dismissal of studies that suggest that the strongest association found with GWS sufferers is knowing another person with the illness.

said he would treat us as Chronic Fatigue rather than Gulf War. He would see us as Chronic Fatigue patients because he was, if he was to say Gulf War the same would happen to him as would happen to Dr. Jamal. As soon as Dr. Jamal mentioned the Gulf War his funding was started to withdraw from the stuff that he was doing.

[29] Whether it's Chronic Fatigue or the Gulf War. The fact is that the only thing that a lot of us have in common is the Gulf. So even if the Gulf is causing Chronic Fatigue it's still something that they have done that they are not prepared to accept that they've done. But again that's only one part of the illness that they've found something. That's only the fatigue part and the headaches, but that's nothing to explain the joint pain and the headaches. Um and the memory loss kind of thing. It's like taking it bit by bit. You've got to take it the overall picture of it all.

[30] [Where do you get information from?] Mostly there are emails from America. Or they will send you a site to go to on the Internet. More information comes from America than anywhere else. If you look at the money they are spending.... [31] I don't think they [the UK studies] are working with all the information. Um, the latest one that came out from Professor Spratt. Not so long ago and then it turned out he didn't have all the information to make a true assessment in the Gulf war issues. [...] He was mainly about the DU things and that. But even before he did his study he was on the radio saying that he was sure that DU was no problem. And that was right before his study had even started. I don't see how he could say that and be objective in the study he was doing. I think the problem is that most of the studies that have taken place have been funded by the MoD...so they are not what you would call impartial. And those studies, I think that's the main problem that we've got in the UK. Most of the people that have been independent studies have found different conclusions to what the MoD have come up with... backing what people believe, but the same could be said for the MoD, they are backing the ones that they believe and try to rubbish anything that comes out on our behalf and we are the same, anything that comes up backing them up we are quite quick to rubbish that as well. I think that what we need is an independent body set up and try and look at it with input from the MoD and from us, but nobody holding an influence over it. Totally independent from both of us. Because at the moment if the MoD hold a study we obviously see it as biased towards the MoD and if we have something that comes out they see it as biased towards us and I think you are always going to get that, until there is something that comes out that is totally, totally independent.

Contained in Mark and Debbie's narrative is an account of networks of knowledge and information. Such systems are central to understanding GWS theories. Who do veterans

listen to? Who do they consider experts? Who and what do they dismiss? Central to this discussion is a question of professional expertise and lay expertise and work which has been done on the public understanding of science. McKechnie (1996) points out that Latour (1986) urges social scientists to follow science out into the world, but she suggests the importance of following science from the world, and tracing its path partway back. The “assumption is that science, and its practitioners, are not the only, and perhaps not the principal, actors involved in the social construction of scientific authority. It is not a one-way process. The whole of society participates in identifying ‘science’ and ‘expertise’, as it does in the identification of any important symbolic boundary” (p.130).

Mark suggests that his doctor does not know much about the illness and, thus, defers to Mark himself as the real expert (26: p.74). In fact, he suggests that the doctor is afraid; that medicine is tied to issues of politics. So where and from whom do they receive their information about their illness: from other veterans (27: p.74). Most, if not all, sufferers report that they rely on other veterans and the association for scientific information. The Internet is central to this sharing of information as it connects veterans from all across to UK and, indeed, across the world. Experiential expertise rules in GWS circles: with the public and media seeing veterans as the only true experts of the illness. One of the leaders the association was keen to emphasize the medical knowledge of many of the veterans, furthering their claim on expertise. I was often told that many were medically trained; thus, veterans still wish to ascribe to traditional notions of expertise and insist on a medical foundation for the debate.

In looking at the creation of knowledge networks, the very question of the separation between these experts and the public is thrown into question. Most anthropological studies champion ‘lay perspectives’ and have revealed a great deal about the way that patients and other lay persons respond to new technologies and knowledge as they are applied and/or disseminated into a ‘wider world’. Those exploring how ‘publics’ respond to science in a broader sense have shown how this is constituted by action, rather than just a simple process of passive reception (Irwin and Wynne 1996). Martin’s (1994) work, for example, illustrates how ideas about the immune system ‘travel’ and change

between different publics (and sciences). A lay/professional distinction has been used in a variety of domains relating to medical practice or the use of scientific knowledge in order to highlight the differing ways that those subject to forms of knowledge experience or make sense of them. This has been most usefully demonstrated in relation to risk information and figures (Douglas 1992; Lupton 1995; Beck 1992).

Mark mentions a few doctors by name and suggests that there is a group of doctors and scientists that other veterans have found who are “sympathetic,” suggesting that medicine is not pure or homogeneous and open to individual beliefs (28: p.74). Furthermore, he describes a kind of system in which these doctors or scientists are in touch with each other and direct veterans to follow the chain of trusted, sympathetic experts, creating a closed community. Many veterans have met the scientists whose theories they advocate; indeed, many have been studied by them. Scientists are often referred to personally and are evaluated on factors other than their scientific credibility. McKechnie (1996) found in her Isle of Man context that scientific knowledge played an unimportant role in the credibility of figures singled out as ‘experts’. Instead, integrity and competence in everyday life were central concerns; trust and authority were heavily contingent.

Within research into public responses to scientific issues there is a tendency to dismiss as irrelevant moral evaluations of persons and institutions (McKechnie 1996). In the GWS movement I found issues of trust and personal evaluations to be central to decisions about who was or was not considered and expert. Most importantly, experts were those who support the veterans’ rendering of their condition and who accept the expertise of the veterans themselves. It is now accepted that trust and credibility are major contextual factors influencing the uptake and understanding of scientific messages and the public perception of risks (Wynne 1980, 1992; Slovic 1992). Wynne (1996) shows how issues of trust are embedded in changing social relationships and constantly open to renegotiation. Veterans’ interpretation and acceptance of scientific findings are completely embedded in the context of their social relationships and are based on a complete mistrust of one side of the debate. Trust, however, “is a profoundly relational term, a function of the complex web of social relations and identities” (Wynne 1996:40).

Mark suggests that there is better, more valuable, more truthful information coming out of America and continues to suggest that UK studies are flawed (31: p.75). Throughout my fieldwork I found veterans talking about other countries as the place where veterans were more believed and treated better. UK veterans suggest the US and Canada are more sympathetic and vice versa. UK veterans, like Mark, believe UK studies to be flawed due to their MoD or government funding. But Mark also admits that veterans are guilty of only backing the findings that comes out supporting their understanding of the illness. He suggests the need for a purely independent and impartial body. Irwin et al (1996) suggests that the plea for totally 'independent expertise' in practice be unmatchable, but that it "seems to suggest that there *is* seen to be such a concept as 'pure' science" (p.57). In their study of perceptions of local environmental threats, this notion was not within the everyday context as defined by residents, however. There was a sense that science was "out there" in the same way that veterans perceived that pure science was possible, and other countries had come closer to attaining it.

Mark also discusses the way in which those who are "sympathetic" to the GWS cause are the victims of conspiracy. In his narrative, Mark describes a divided world where there are good scientists and bad scientists. The good scientists, like the neurologist and Dr. Jamal, support and legitimize veterans' theories, but by doing so are left vulnerable to unknown, evil forces of government and funding. On the other side are scientists like Dr. Spratt who are biased, not impartial and linked to the MoD. The fact that Dr. Spratt was recorded as saying he did not think DU was a problem before he had completed his study is evidence of his questionable scientific credibility. Throughout my fieldwork I found that any study which came up with findings which were unacceptable to the veterans were easily dismissed by pointing out the study had been funded by the MoD or Department of Defence (DoD) and, therefore, biased and invalid.²

² This, of course, puts my own work in a difficult situation as the veterans were aware from the outset that I was part-funded by the MoD and fully funded by the government.

Debbie introduces Malcolm Hooper in her discussion (15: p.50). In many ways this man is the driving force behind GWS and plays the central role in veteran's scientific understandings. Hooper is a retired professor of medicinal chemistry from Sunderland University and maintains a role as a professor emeritus. He is the veterans' scientific advisor, spokesperson, expert witness and president. He is the most trusted and most involved advocate and I saw veterans treating him with a heady mixture of respect, reverence, admiration, loyalty and love. His word is gold and unquestioned by the veterans, but he is a source of scorn and annoyance for others. Veterans see him as *the* scientific expert of their condition, saying he looks at the bigger picture. Whereas other scientists only look at GWS in relation to their small specialty, Hooper as a chemist can understand and discuss all the various aspects of GWS. Much of veterans' information is acquired via Hooper.

Hooper is the champion of the veterans' cause and he positions himself against other researchers who are perceived as dishonest and involved in conspiracy (30, 31: p.75; 19: p.50). As John said:

Misinformation, disinformation. The largest group of doctors that have produced evidence, or so called evidence, of GW related illness has been at King's College/ St. Thomas' and that investigation has been funded by the DoD. And they've funded the investigations that they want. They didn't want them to look. The MRC have not granted proper funding. [A doctor at Sheffield] told me, he said, 'any doctor that has put proper bids in for proper research into the illness were turned down. The only people that were granted funding were King's College. And that was a psychiatrist there.' So they had already channeled the funding into the direction of where they wanted it to go and that was done by the MRC. Now, they've already chosen the route that of epidemiology, which is the furthest from looking for medical illness or a problem. And it's usually a way to somatise illness when the government don't want to accept responsibility.

Thus, the biased and political nature of scientific studies is emphasized. Both Mark and John suggest that UK studies are inherently flawed because of their funding sources. John, with one broad, brush stroke, dismisses all the work by the leading research team in this country (which disputes their understanding of GWS as a unique, discrete physical

illness). Knowledge “always lacks. Ambiguity always lurks. If you want to cast blame, there are always loopholes for reading the evidence right” (Douglas 1992:9). The consequence of using science in politics is that “both sides consult their own scientific experts. Huber (1990) describes how fringe calls to fringe: peripheral movements take technical advice from peripheral science and force a split between centre and frontier”. By so doing, science loses its power” (Douglas 1992:33).

It would seem that scientific and medical research reflects the lay-derived themes of GWS. McKechnie (1996) suggests that science and its practitioners are not the only actors in the construction of scientific authority. Paine’s research with the Saami and Wynne’s study of Cumbrian farmers showed how these groups’ own specialist practical knowledge was a cherished part of their identity. Their exclusion from formal decision-making served only to strengthen the boundary between ‘us’ and ‘them’. Paine expresses clearly how the Saami came to feel that dependence on expert knowledge undermined their cultural identity (1987, 1992). However, these situations differ dramatically from that of the Gulf case where decision-making bodies include veterans themselves. Furthermore, veterans’ identity seemed to be wrapped up in being able to “beat scientists at their own game” using medical language. For example, their claim that “many veterans are medically trained” and the new appointment of two doctors onto the NGVFA board. So in the Gulf case expertise is held by veterans’ own knowledge of their bodies and experiences, but they seek more and more scientific knowledge to increase their expertise. Furthermore, some veterans, such as association leaders, are seen as the ultimate authority due to their medical background, individual experience, and gained scientific knowledge through studying the case.

Wynne (1996) showed the way in which Cumbrian farmers explained the “the lack of credibility of the present scientific claim about the Sellafield-Chernobyl distinction as due to the untrustworthy way in which the experts and authorities had treated them over the 1957 fire” (p.31). Their reading of the present was embedded in their perception of the long history of misinformation surrounding the site. Similarly, veterans point to a long history of untrustworthiness, secrecy and cover-up of the MoD to situate their

understanding of GWS; often linking the present situation to Porton Down and the experiments done there. For a veteran ready to suspect the MoD, there were situations of cover-up or gaffes directly involved in the war which provided them with ammunition. For example, in the autumn of 1996, Nicholas Soames, Britain's armed forces minister, was forced to admit that the House of Commons had been misled about the use of pesticides in the Gulf, and that such use had been far more extensive than anyone had said. Similarly, the Kamisayah incident was not made public knowledge until years after the war. Whether this concealment was deliberate or just a result of bungling is not clear, but it damaged public confidence. Interestingly, the Cumbrian sheep farmers that Wynne spoke to linked their mistrust of Sellafield with the fact that it had been a MoD site at the time of the fire and, thus, shrouded in secrecy. The MoD seems to be universally regarded as a mysterious and malevolent institution and, thus, the veterans' perception of it as thus is neither unique nor new.

LEVELS OF CAUSATION

Causality has provided an important set of debates in philosophy, with Hume arguing that the imperative to construct tangible causes is an important aspect of what it is to be human. Anthropology argues that to classify is as much a moral as an intellectual process. Cohn (2000) argues that since ideas about how things can happen are based on beliefs about how they happened in the past, risk perception must be examined in conjunction with theories of causation. This has long been an important theme in medical anthropology, drawing on Evans-Pritchard's idea that Western science answers the 'how' but not the 'why' questions. Cohn notes that the process of establishing "clear causes is a way of keeping the past and the present reasonably tidy" and is thus a way of ensuring order both cognitively and morally (2000:218). There is often growing lay frustration with scientific explanation; people experience the dissipation of cause and thereby the disappearance of an elementary moral resource (Cohn 2000).

Cause is the central tenant of GWS. It is the cause: the complex of exposures which is the key to the illness, not the clinical type or symptom presentation. What the veterans have in common is cause: the Gulf War. Of interest is the way in which cause does not

work in the same way in veterans' theories as it does in the medical system. Lewis' (2000; 1975) work on the Gnau showed how it was a diagnosis of cause and not the manner or clinical type of illness (Lewis 1975) which was their focus, in a similar mode of thought as that found in GWS explanatory models. Similarly, the person is either considered ill or well and the specific locale of the illness is unimportant. Furthermore, the "decision about whether someone is ill as a whole is largely left to the individual concerned.... This contrasts strikingly with the way in which the final decision is held to rest with medical experts in our culture" (Lewis 1975:333). Each individual in the Gnau 'system' views their own case with concern for particular detail, with generalization being less important. I found in Gulf cases it is the commonality of a link to exposures which holds the GWS system together, although veterans claim similarities between cases, they are not actually concerned with specific generalization. There is a huge flexibility accorded to difference and individuality due, in part, to the large complex of exposures and individual uniqueness which allows for infinite possibilities.

The picture presented in this chapter is one of inconsistency, a mercurial model which rational science would deride. Central to this discussion is the issue of rationality. Winch (1964) challenged Evans-Pritchard's contention (1934, 1935, 1937) that Azande beliefs about witchcraft and oracles are logical, but mistaken. The predominant position within anthropology has been against Winch and with Evans-Pritchard: that Azande beliefs are fictitious, though as logical in argument as those of Western science (Overing 1985). The conviction that the West is highly rational has begun to be scrutinized, particularly in the crisis of faith in science. Wynne (1996) suggests, "The 'rational' approach championed by modern scientific culture would assume inconsistency, imprecision, or ambivalence to be manifestations of intrinsic feebleness. However, we begin to see that such absolutist categories are actually moral or cultural stances". Furthermore, what is revealed "is a deeper and more complex consistency in public reasoning than that recognised by such simplistic models. In the real world people have to reconcile or adapt to living with contradictions which are not necessarily within their control to dissolve. Whereas the implicit moral imperative driving science is to reorganise and control the world so as to iron out contradiction and ambiguity, this is a moral prescription which may be

legitimately rejected, or at least limited, by people. They may opt instead for a less domatory, more flexible and adaptive relationship with their physical and social worlds. In this orientation, ambiguity and contradiction are not so much of a threat, because control and manipulation are not being sought or expected. This is no less legitimate a form of rationality than the scientists'” (p41).

Horton (1967) says African thought is not reflective or critical, is closed rather than open, is unable to entertain alternative conceptions to its dogma, and is ignorant of the experimental method and the concept of chance. It resorts to secondary rationalizations to protect its premises, rather than courageously face the possibility of falsification. Tambiah (1990:91) suggests that Horton's interpretation of Western science is ignorant to the way it is protective and closed and suggests, “Horton would certainly have been chastened had he encountered Kuhn's presentation of the conventional stratagems employed by the practitioners of contemporary normal science to keep their thoughts intact”. Similarly, Nader (1996:3) argues that science is not only “a means of categorizing the world, but of categorizing science itself in relation to other knowledge systems that are excluded”. Within science the idea of a ‘single world’ is being challenged. Overing (1985) points out that both Kuhn (1964) and Feyerabend (1975, 1978) have argued “against the belief of Western science in a unified objective world unaffected by the epistemic activities of the scientists themselves; rather, they say, the world, from the perspective of our knowledge of it, is how we view it through the paradigms we create” (p.2).

Lewis (1975) reveals how Gnau systems of knowledge and belief are “not ordered into a flawless unitary system” so explanations of illness do “not have to be accommodated to one single line and sole original source” (p.352). The “variety of bits and pieces of possible evidence, the selective attention given now to one facet of the situation, then another, permit multiple explanations for the same illness along different lines of reasoning” (Lewis 1975:353). In this system, consistence, uniformity and singleness of explanation are not prized and conditions of proof and disproof are not clearly

established. Aristotle spoke of different chains of causality,³ there being different explanatory framework for the same thing. In each culture, however, we value some more than others because we are trained to do so. If one is not satisfied with the lack of meaning, we are able to carve out another one and this is just what veterans do.

The veterans make a claim for causality that is not only or strictly biomedical. They want to dictate what they think is the causality of their individual case. Medicine is strict, but we are faced with the nebulous. There are different meanings in cause; the veterans are creating a grand ontological system. In many ways the veterans' view of the world is similar to belief systems of other societies where it is normal for truth to be tied to other truths that are social, moral, and political in scope (see Gellner 1973). Veterans create chains of causality where everything is linked together and has overall meaning. For example, one veteran I met suggested that DU had caused him to have liver and kidney problems and went into great detail about how he had come into contact with DU as a result of picking up charred Iraqi bodies on the Basra Road. I was surprised by his suggestion that his liver problems were due to DU because he had just spent the past hour telling me about his experience of being an alcoholic and living on the streets for years after the war. He did not, however, link his years of heavy drinking to his liver and kidney problems because, as he said, his drinking was secondary. He said in retrospect he had realised that he drank to deal with the GWS and, thus, it could not be the cause of his health problems. He creates a causal chain where the GWS, caused by DU and other exposures comes first and his drinking was a response to this. Veterans fashion out an explanation in a way that makes sense to them and makes sense of their experiences both as an individual and as a group.

All roads lead to GWS. All the separate and various symptoms and illnesses are part of a causal chain. Mark points out that many of them have CFS (19: p.50), but that is *caused by* GWS. Similarly, veterans describe psychological symptoms as *caused by* GWS: they are either chemically induced, a secondary result of their illness, or are the result of their

³ I am indebted to Simon Cohn and the rest of the Genomics, Anthropology and Technology Group for this foray into levels of causality.

illness not being acknowledged. Thus, the very fight for recognition feeds back into their theory of causation. There is a real desire for a meta-narrative that links everything together and ties everything up and responds to every criticism. Mark, for example, incorporates an element to make sense of the fact that there are so many symptoms, so many degrees of severity, and that people have become ill at different times (15: p.50). For Mark, age, fitness and vulnerability are all linked. As will be discussed in Chapter Four, the immune system plays a central role to this flexible and inclusive, yet robust theory of GWS.

GWS theories are extremely accommodating, with the possibility of including different illnesses, or matrices of illnesses for each individual. They can envelop any social issues (adultery, criminal behaviour), any psychological problems (PTSD, depression) as well as any disease (cancer, MS). It is also able to contain a variety of different (and possibly contradictory) theories of specific causation. GWS theory can include a number of individuals: including those who were not deployed. The GWS system of thought is open to new findings and emerging beliefs in the world around. It is a terribly robust system: accommodating to a fault, yet also able to deflect criticisms or evidence which apparently contradicts it. In light of the former it is an open system, yet in light of the latter it is closed.

Evans Pritchard illustrated how beliefs in witchcraft, oracles and magic accommodate and absorb experience that appears to show them to be invalid. Situations of this kind are explained as due to a breach of taboo in preparing the oracle-substance which makes a false detection, so that each apparent failure is rationalized in terms of other mystical beliefs. Thus, the whole system is bolstered by apparently contradicting evidence. The system itself is constructed so that it appears to accord with reality and is insulated against apparently contradicting evidence by secondary elaborations of belief and the limited perspective which any one man has on the setting of witchcraft accusations and magical operations. Evans-Pritchard's study "of how Azande beliefs in witchcraft, oracles and magic operate as a self-sealing and self-supporting system is so acute that Polanyi used it as a model to examine 'the stability of beliefs' in science" (Gluckman and

Devons 1964:161). Similarly, GWS is a flexible yet closed system which was able to deflect any criticism or information which might dispute it. For the Azande, there was always an explanation for why things did not work. Similarly, there are layers to the GWS explanatory system. As mentioned specifically in terms of Haley's theories, veterans use parts of some theories whilst ignoring others. They also hold contradictory theories at the same time. It was as though when they spoke about one exposure or its associated theory they did so in isolation of the other theories they presented. As they argued for one theory, the others fell away.

One of the main ways the GWS system of thought is able to deflect information which contradicts it is by recourse to a grand conspiracy theory. According to the veterans the world of science is divided into two main groups: those that support the system of thought, characterized by good, honest, independent scientists; and those that dispute the reality of GWS characterized by evil, self-serving individuals who are funded by and, therefore, under the control of the MoD. So, for example, the fact that the majority of scientists who supported the GWS movement are unpublished, could not get their findings published in peer-reviewed journals, were disrespected by the scientific community, fired or struck off the GMC was not evidence of their inferiority as scientists. Quite the contrary, it suggested a widespread conspiracy which pointed to the fact that their work was getting dangerously close to the truth. The details create the need for a plot. The founding practice of conspiratorial thinking is the search for the missing plot (Stewart 1999).

META-NARRATIVE

GWS and other new illness movements provide a template, a way to construct inclusive biographical narratives. It would appear that people reach for explanations that tie up loose ends and are able to incorporate a wide variety of experiences. It would seem that people are struggling to construct a meta-narrative. Tied in to this process, particularly in regards to GWS, is the reliance on conspiracy theory. As Stewart (1999) suggests, the details in one's experience create the need for a plot:

It's not that for conspiracy theory everything is always already a rigid, all too clear plot, but rather that the founding practice of conspiratorial thinking is the search for the missing plot. Think of it not as a prefabricated ideology... but as practice (p.15).

Furthermore, "the system that makes sense of inchoate sensibilities and moments of strange convergence. Its practice born of a world that cries out for interpretation" (Stewart 1999:16). Stewart reveals that conspiracy theory is a means of constituting reality where everything is connected and the connections are uncanny. In isolation, any one of these "grains of salt" would not seem significant. It is the cumulative effect which is powerful, provoking new mappings of how the world works and new logistics for explicating where trust should be located" (Fortun 1999:346). Similar to discussions above which assert that GWS and other new illness movements are characterized by consuming doubt, and the unbending assertion that truth will out; conspiracy theories combine such doubt and belief that the truth is out there (Stewart 1999).

Writing specifically about conspiracy theories and GWS, Fortun (1999) says they "have not been provoked by any one traumatic or especially noteworthy incident. Instead, veterans have heard news stories, exchanged memos across the Internet, and, occasionally, met other vets with whom they could share stories. Theorization of conspiracy has thus been gradual, cumulative, and often via indirection" (p.346). She sees that conspiracy theories in this context have been "provoked, produced, and made to function," in order to respond to the strange and often contradictory information that circulate around the illness.

Hofstadter (1952) said of conspiracy theory:

The typical procedures of the higher paranoid scholarship is to start with such defensible assumptions and with a careful accumulation of facts, or at least of what appear to be facts, and to marshal these facts toward an overwhelming 'proof' of the particular conspiracy that is to be established. It is nothing if not coherent- in fact the paranoid mentality is far more coherent than the real world since it leaves no room for mistakes, failures, or ambiguities (p.36 as quoted in Marcus 1999).

The work on conspiracy theory mentioned above were contributions to a recent book which looked to deepen and amend Hofstadter's study "by coming to terms with the paranoid style, not as distanced from the 'really' rational by exoticized groups with which it is unusually associated in projects of targeted critique or exposé, but within reason, as a 'reasonable' component of rational and commonsensical thought and experience in certain contexts" (Marcus 1999:2). In his introduction to this work, Marcus suggests that the cold war era was a broad context and condition of contemporary life that made the paranoid style and conspiracy theories an eminently reasonable tendency of thought for social actors to embrace. Furthermore, in "the legacies and structuring residues of that era make the persistence, and even the increased intensity, of its signature paranoid style now more than plausible, but indeed, an expectable response to social facts" (Marcus 1999:2). He also suggests that the crisis of representation, with its accompanying inadequacy of meta-narratives and conceptual frames to explain the world provided the context of social actors reasonably embracing conspiracy theories.

This system is layered in that it deals with chains of causation. It is also a moral system in that it makes sense of responsibility and enables the sufferer to clearly appoint blame. The GWS system is flexible, able to incorporate a huge variety of internal difference: different experiences; divergent symptoms; a magnitude of often-contradictory theories. It is adaptable, able to incorporate and encompass new findings and directions. But it is also a closed and watertight system, like the Azande's system (see Chapter One), in that it deflects criticism and is able to respond to information which looks to contradict it.

CONCLUSIONS

Veterans see the world of science as divided into two groups: those that good, honest scientists that support them; and those biased scientists who do not support their cause, are part of an MoD conspiracy and are dishonest, evil people. Despite this view of science as distorted, they maintain an immovable faith in the importance of science and believe true science will eventually reveal their illness and its cause. There are levels of causation to the GWS explanatory model, allowing for a great deal of flexibility. Veterans' theories are an attempt to find meaning in their experiences and a way to tie up

loose ends. GWS theories of causation are moral systems: they point the finger at those who are to blame for exposing sufferers to risk. The flexibility and robustness of the system allows veterans to map their individual experiences onto the overall explanation. By way of GWS theories of causation veterans are able to construct a meta-narrative that ties together seemingly unconnected experiences, illness and misfortunes.

CHAPTER 4: LEAKY BODIES

INTRODUCTION

The taxi took me from the train station in Blackpool to the family resort. This would be my home for the next week while I attended the NGVFA's Annual General Meeting and respite week (AGM). There was something odd about bringing all these ill people together to a holiday camp to discuss and dwell on their suffering, yet the depressing surroundings of a Butlins holiday camp in the middle of a cold and gray March seemed to match the mood. I was ushered into the lobby of the meeting building where I saw Rebecca, John, Jack, and other familiar faces. They had set up a table with association badges, pins, and information. The lobby was full of people milling around, drinking coffee and chatting. Children ran in and out of the playroom as their parents caught up and discussed the latest GWS information. I registered with Rebecca and was given a 'welcome pack' and my room key. I set off to get settled in my room and looked through the welcome pack. The pack contained an itinerary for the week outlining talks (speakers included Malcolm Hooper; Dr. David, a psychiatrist involved in the movement; and the lawyers representing the case against the MoD), information sessions as well as nightly entertainment. Information about the illness and symptom lists were included as were various scientific papers.

After getting settled in my room and pouring over all the information in the welcome pack, I returned to the lobby. People had continued to arrive, sign in, pay their yearly membership fees and then remained to chat to one another. As I absorbed the scene I saw one man leaning on two wooden walking sticks and a number of others aided by one walking stick. I sat down on a couch beside a man I did not recognize; soon after a woman approached me to asking if I was 'the anthropologist.' When I told her I was she pulled out an appointment card and asked if she could sign her husband up for an appointment. After arranging the details with her, the man beside me introduced himself. Ed and I sat talking for some time. He explained that he felt a bit strange being here because he was not sure if he fit in, as he had not fought in the war. Stationed in Cyprus in 1990, Ed had been given the inoculations in preparation for the Gulf War, but, in the

end, was not deployed. Having not had much contact with the veterans' association and having never attended any gatherings of this kind, Ed was unsure of what to expect. Everyone seemed to know each other he mused, but he did not know anyone. Feeling very alone, he wished his wife and child could have come with him.

Ed was very easy to talk with and seemed like a nice, gentle guy. Well-mannered and pleasant, he immediately spoke about his young son of whom he was very proud. He began to tell me about his life and his time in the army. After 5 years in the army, he left in 1992 soon after the Gulf War. Joining the army at 18, he had trained as a tank crewmember, but always knew that he was not going to make a career of it and left once his minimum service was up. In the last year of his service he had become disillusioned with the forces. He had broken his leg, yet they refused to fly him home. He had just had enough, so he left. The next year he began experiencing symptoms, including eczema and glaucoma, the latter concerned him as he was only 31, and he had green discharge out of his eyes. He began itching all over, became irritable and noticed aches and pains in his joints. He also felt he was having palpitations, breathing problems, as well as experiencing pins and needles in the tips of his fingers and toes. One of the more distressing experiences was that his hair fell out and only grew back before his wedding in 1999.

Ed painted a picture of himself as a super-fit army soldier who played football. Yet now his immune system was shot, he explained, and he "got everything going." Ed met his wife a few months after leaving the army. She had noticed a change in him, he said, in that he had mood swings and become a perfectionist. Other things had worried him and made him feel as though something was wrong. He said he had burning semen syndrome and was sensitive to sunlight. His wife began to get a lot of thrush and sadly, had a miscarriage which had occurred because his sperm "attacked her egg". They had since had a healthy boy.

The list of symptoms from which Ed suffers is typical of GWS sufferers. In this chapter I will discuss veterans' symptoms, particularly in order to investigate their understandings

of risk and their bodies. Veterans' complaints invariably concern themselves with anxieties about the body, body boundaries and bodily vulnerability. Body substances are imbued with meaning and power; they contain the toxicity of the Gulf War exposures and are dangerous because of their ability to transverse body boundaries. Most body substances are involved in discussions about GWS: spit, sweat, semen, urine, faeces and blood are all important for their role as symptoms, as markers of the illness and/ or their role in contagion. A website¹ about GWS, for example, stresses its contagious character saying, "evidence is now turning up that doctors who treated GWS vets have contracted the disease themselves. Dr. Larry Goss of Walters, Oklahoma, never went to the Gulf, yet he and his wife are now sick. 'We do know that GWS is transmitted by perspiration, saliva, and sexual secretions,' he said. He added, 'As far as I'm concerned, they [the government] just took a gun and shot it at my wife'" (Marshall 1996).

In some reports beliefs about the toxicity of body substances is taken further, as some veterans have claimed that their vomit glows in the dark.² One veteran described his front line regiment as the first "glow in the dark regiment". Veterans also suggest that their body boundaries have changed; their bodies transformed as a result of GWS. Some say their bodies have diminished, losing muscle and bulk. Indeed, one of the veterans I spoke to suggested he had shrunk, a claim repeated by two veterans in Mississippi (Jaynes 1994 in Showalter 1997a). Others say they have become bigger by gaining weight; suggesting they had "ballooned." Thus, narratives of GWS involve discussions about shifting bodily boundaries as well as the permeable nature of barriers.

BODY SUBSTANCES

Skin

When I asked Ed which body systems are affected by GWS he listed a number, but suggested that his body system most affected was his skin. A common symptom of GWS is skin rashes and other conditions played out on the surface of the skin. Napier (1992) notes, "particularly considering the extent to which problems of immunity manifest

¹ <http://csf.colorado.edu/forums/peace/96/nov96/0107.html>, Thursday 21 Nov. 1996 report by Carole Marshall

² Brian Martin is an American Gulf veteran who is known for his glow-in-the-dark vomit.

themselves *on the skin*- as the body's inability to come to terms (in a sense that is *simultaneously* symbolic and biological) with the value systems as such: that is, with its environment" (p. 151). Veterans suggest that their skin is more sensitive than before and that it often reacts adversely to the environment; there is the sense of change, as though veterans' interaction with their environment has altered.

Ann, one of the veterans discussed in the previous chapter, explained that she had a number of symptoms, but their visibility was elusive:

I have increased chemical sensitivity. Can't wear perfume, had to change deodorant. Rash, but the rash is not there when the doctor from War Pensions comes round.

Above, Ann emphasises her sensitivity to chemicals and day-to-day products that many would take for granted, but she also points out the fleeting nature of the visible signs of this sensitivity.

Internal Surfaces

Similar to the skin, surfaces of certain organs are thought to be inscribed with GWS. Veterans report that they have scars on their livers and kidneys and commonly suggest that such scarring is the result of DU poisoning. One day at the GVMAP they told me a patient was demanding to be tested for DU and was complaining that they were not recognizing the scarring on his kidneys. "But he does not have scarring on his kidneys", the doctor said. At a later date the doctors at the GVMAP were annoyed because the Gulf Veteran's Illness Unit at the MoD had suggested the GVMAP investigate all 3000 cases for renal and liver scarring. One of the doctors said that liver and kidney scars "are like a scar on your arm, it is the end of a pathological process." Furthermore, scarring, he said, is not caused by DU or the other possible exposures. In normal practice, I was told, physicians never request ultrasounds to see liver or kidney scarring for the scar itself is of no clinical significance. Scarring causes no suffering, according to the doctors at the GVMAP, and, thus, investigations of them were unnecessary. For the veterans, however,

scarring proved some sort of malevolent interaction- it was a way to make their illness visible.

Bones

Veterans commonly understand their bones as being weakened through their participation in the Gulf. A common symptom discussed is osteoporosis and, as mentioned above, some have suggested they are shrinking. It is suggested that veterans' bones do not heal or set properly. A few days into the AGM Ed and I spoke again and I found he had re-interpreted an event in his life after meeting with other Gulf veterans. When I sat down with him to conduct a formal interview he had just met with a group of other non-deployed Gulf veterans and said he was amazed by how much they had in common. He said that as they spoke he mentioned what he thought was a normal rugby injury. The veterans pointed out that it was unusual for his leg to shatter as it did instead of breaking cleanly and told Ed that a symptom of GWS was weak bones, suggesting this would explain his injury. The previously innocuous injury took on a new meaning and was now encompassed into a diagnosis of GWS.

Bone is important for its ability to be tested; it contains a kind of narrative of exposure. It is seen as interpretable to some extent in relation to exposure to depleted uranium. Below John, introduced in the previous chapter, discusses the role of bones in GWS. This narrative ties in with his dismissal of the chemical weapons theory discussed in the previous chapter.

Again, go back to the bone disorder. The toxicity, we've been exposed to a toxic compound in our bones. So, it wasn't a nerve gas, because there wouldn't be enough to cause that. It would have been instantaneous type of health problem: death [laughs]. The vaccine problem, now that could have caused the degradation of our health. Our health broke down and as it broke down, we were not turning our bones...and that could explain osteoporosis and those things...the atomic effects. Slow and gradual physical and mental... I believe that my health problems are from the vaccines and secondary Depleted Uranium. I can only say that because I've been tested by three labs and three labs have said that I have got U235 and 238 isotopes... and my bone results show that I've had a toxic

exposure. At least I can say now it's no longer just in my head. It's actually in my bones as well.

Bones and the bodies of veterans are seen as components that are available to be removed and scrutinized. Bodies of dead veterans are similarly seen as artifacts of war with the war experience etched in their bodies, ready to be interpreted. Malcolm Hooper, the veterans' scientific advisor, regularly calls for more and more testing for Gulf veterans:

The difficulty is that the levels of excreted uranium are getting so small that detecting them is going to be difficult. Some of them have got past the detection levels, so we now want other mechanisms of identifying damage from radiation. And there are two ways of doing this. One is by biopsy and autopsy material and a number of guys have had bone taken out... I think it was, wasn't it? That's where depleted uranium goes into bone. Like lead, it finds a home in bone. The body puts it out of the way, the best it can- in bone. If veterans die and are prepared to have tissue taken from their bodies, their family are prepared to have tissue taken from their bodies we should find, I think, depleted uranium in lymph nodes, possibly in the lungs, as well.

Veterans' associations, advocates and scientists alike have suggested that bodies should be "left to science" so that more tests can be conducted. Even after death the veteran's body is a text to be read for the benefit of the group. There have been a number of cases where this has occurred; the veteran or his family sacrifices their body after death in order for it to be investigated.

Faeces

Most veterans suggested that one of the parts of the body most affected by GWS was the bowel. Diarrhoea and Irritable Bowel Syndrome (IBS) are two of the most common symptoms reported by GWS sufferers. Jack, the veteran introduced in the previous chapter, said:

Bowels, I mean a lot of people's bowels are effected.... Even simple things that can be embarrassing...that you don't realise that you soiled your underwear. Again, we all have that.

John, also present during this focus group agreed, and suggested that all sufferers have “irritable bowel.” The common complaint of diarrhoea may be linked with experiences in the Gulf, as it is reported that many veterans experienced diarrhoea whilst they were in the Gulf, possibly as a reaction to NAPS tablets. George, an ill veteran who was involved in the veterans’ association and had been one of its founding members in the early stages of the movement, describes the effects of the NAPS tablets:

And all the time we was out there we were having side-effects from the NAPS anyway. Mainly diarrhoea. Again it was so common in the hospital, that if you was in your section and someone come round when you weren’t busy, wanting to come round and have chat, umm, and you weren’t there, all your mates would tell ‘em, that it’s the NAPS. So they would know to find you in the toilet. That’s how common it was.

I was struck by how often and openly veterans spoke about their bowel movements. Most described their bowel movements as irregular and as a source of concern. One veteran, William, told me that the first thing he noticed when he began feeling ill was that he felt nauseous, like someone had “kicked him in the testicles”. He said he had extremely erratic bowels “from which emanated bad smells, pus, blood”. William had been concerned because at that time he was going to the toilet 8 to 12 times a day and could not control himself. Concluding these remarks, he reported that at that time he felt as though he had inhaled toxic fumes. It was as though his bowels contained this toxicity and were allowing it to exit his body. He later said,

Whether it was radiation, DU, whether it was chemicals, whether it was the NAPS that were still hanging on in my system, I don’t know, but I think things are getting flushed out. The body does rebuild and repair itself. That’s still no excuse for the government to be giving these things and not accepting the way I was after the war.

When he noticed the pain in his testicles and his erratic bowels, William suggested that he began to be concerned about the state of his health and his body, so he sought medical advice. He was not, however, satisfied with the care he received. The reason he gave for this dissatisfaction was that he had never been given a blood or stool test; thus, the doctor did not inspect the substances of his body which he felt were proof or markers of his

illness and its related toxicity. He felt as though he had been poisoned and was angered that “proper investigations” were not done. He continued:

Life was pretty miserable. At this time I was very tearful...I hadn't given my situation much thought, I was just vegetating...I heard about Blackpool³ and drove up, enrolled in their organisation...I was feeling much better physically and mentally and started to make some noises. Blackpool stirred me up to go [back] to the Gulf Veterans' Assessment Programme at St. Thomas'. This was my second visit. At my first visit I was horrified- I thought they were going to help me. I was there for the greater part of the day. I had half an hour of testing and they did an ultrasound. They found that my left kidney was not visible and the other kidney was enlarged.... I was then told by the doctor that I was born like that...I was a freak...and that I was otherwise fit and to go away. I felt it was a noddy medical that I could have got at my local surgery...so noddy it was silly.... I wanted to know more about the missing kidney. I found out that my problems were similar to kidney failure. My friend did research on this and found the link with kidney failure. One kidney is working and that is sufficient, that is what my local doctor said, but I wanted to know if I was born like this or if it happened more recently.... I found out that the only way to investigate is through internal exam and the doctor said that this will not benefit you...I am totally convinced that my kidney failure happened because of the Gulf War. The Assessment Programme refuse to investigate and I think they should do. I wanted to do a DU test and was told 'we don't do them on demand.'

Again, William stresses his dissatisfaction with the treatment he received by the medical establishment. His dissatisfaction is linked to lack of investigation. It would appear that he wanted his body to be tested, scrutinized and interpreted. He wanted it to be read and wanted others to make sense of it; indeed, he suggested that he would be willing to undergo an invasive internal exam in order to discover the secrets his body holds. Through investigation the invisible, intangible nature of his condition would be made visible to the medical gaze. When the doctors refused he was angry.

Potential sufferers were regularly asked whether or not they had diarrhoea or other bowel problems, suggesting that problems with one's faeces indicated internal problems. The focus on faeces was reflected in Hooper's dealings with veterans. He would often ask

³ Here, William is referring to the NGVFA AGM/ Respite week which took place in Blackpool every year.

about the state of their “guts,” which was not surprising given his background and interests: Hooper became involved in GWS as a result of his association with the Autism Research Unit, Sunderland University. He links GWS to autism by way of an affected “gut function,” and suggests that a marker of GWS was high IAg levels. Hooper links sufferers of ME, organophosphate poisoning, and “other chemically poisoned people” through reported high levels of IAg in their urine. For this to be happening means a dysfunctional gut, he argues, and sufferers from these overlapping conditions show evidence of a “leaky gut”, an increased permeability of the gut wall due to damaged membranes.

Hooper’s leaky gut theory argues that “when the gut wall has increased permeability, the opioid peptides (casomorphin and gliadomorphin) which would normally be excluded are absorbed into the blood stream, giving rise to diffuse symptomatology and systemic dysfunction. Inflammation of the gut is common among ME patients, as are allergic reactions to foods including gluten. The compromised gut facilitates the development of a gut dysbiosis which in turn can give rise to autoimmune diseases, with very significant and chronic damage to health” (Hooper 2003). Hooper summarizes that the IAg system involves the gut, the brain, as well as the endocrine and immune systems; suggesting that “detoxification is essential.” Many veterans follow his suggestion and focus on “detoxing” the body and changing dietary habits, including removing dairy foods and gluten.

Often pictured in his wheelchair, Joe is a well-known veteran and high-profile advocate who has dedicated a great deal of time to studying the condition. He reports:

I try to drink eight litres of water a day...To try to keep any toxins, depleted uranium as dilute as possible so I can hang on to my kidneys as long as possible. I eat a gluten free diet. I take vitamin C. [shows me jar] A natural chelating agent which will help remove DU and heavy metals from my body. The biggest exit route for DU is in the feces. So I try to eat a diet which will produce as much bulk as possible without putting on weight.... Lots of fresh vegetables, low protein diet... I try to go to the health spa- the heat is good for muscles and pain. Oedema to sweat out

toxins. Been to Iraq as part of research to see medical effects. Saw leukaemia type cancers, cancer of the colon.

One can see from the above comments that faeces are seen as containing the toxins present in the veteran's body. Veterans perceive their faeces as abnormal and irregular and, thus, as indicative of something wrong inside the body. Faeces are a way for the toxic matter to exit the body. Similarly, urine and sweat are substances that can pass toxicity out from the body.

Urine

During the above-mentioned focus group, John said that other than the immune system, the system most commonly affected by GWS was "bowels and bladder." He suggests that all veterans have bowel problems and that "irritable bladder" was also an issue for many veterans:

Irritable bladder, many of us took the NAPS tablets. I was one who stopped taking it but I made the decision, but I was a senior NCO⁴ and I decided I was not going to take them anymore and I stopped taking them. I didn't tell anybody. The reason being for me was I was going to the toilet every twenty minutes. You could almost set your watch by it. And I did twelve on, twelve off so every time I got to my cot I'd be asleep...had to get up all the time to pee. Most of us had buckets from the hospital because we were peeing constantly...for many of us that never calmed down afterwards.

Jack added that this urgency that one felt during the Gulf remained:

I mean even now if you want to go to the toilet there is a certain period of time, you know, but if I have to go to the toilet, I have to go now. I have to go straight away.

Many veterans report that they had an unusual necessity related to urinating. They also often suggest that a common symptom of GWS was a frequent need to urinate. Indeed,

⁴ Non-commissioned officer

in GWS circles, when it was noticed that I would often excuse myself to go to the toilet, it was joked that I had contracted the illness. Veterans would sometimes describe their problems with urination as “leaking.” When discussing urination and bowel movements veterans stress the uncontrollable nature of their need and often suggest that they had had embarrassing accidents. Their bodies behave in undisciplined ways, like children or the elderly.

Similar to other body substances, urine is seen a substance which can be read through testing and will hopefully reveal the illness to the observer. As mentioned above, urine is tested for the IAg test, but it is also related to the issue of depleted uranium. As John suggests:

DU certainly can't be ruled out because DU has been found in urine and if you're passing urine, DU ten years after exposure...I've got scans of my kidneys, it doesn't take a great deal.... It does pass through your body in 48 hours, which would explain increase peeing all the time...you were already feeling shit anyway because of the vaccines.

Thus, urine makes the invisible illness visible through testing. At the AGM one of the days was dedicated to talks by various people. In one of these talks, Hooper discussed the importance of urine for testing.

The point about DU is that if you've got DU in your urine now...you were exposed to it ten years ago and you've had it inside your body for ten years. It comes out in low amounts; therefore, a low level is significant. It means you've got internalised body stores of DU, sitting away firing out all the particles. The radiation goes up with time.... Stays there for a long time, for years, possibly forever.... And so what comes *out low levels* of depleted uranium. Where does depleted uranium come from? The Gulf War.

Once again we can see that body substances are seen as evidence of problems in the body and are present to be interpreted.

Blood

When discussing the war, blood is often discussed in symbolic ways. During our first meeting, Ken, the head of one of the associations, said that during the war you had to “bag up the blood-soaked land from where a wounded man lay because you were not supposed to spill Christian blood on the land of Allah”. Another veteran, Brian, said that he had seen three psychiatrists in the UK, all of whom were Iraqi. “They were lovely,” he said, “they believed everything I said. There were piles of sand with blood coming through.” A well veteran, Andrew, explained the way they were prepared for the onslaught of war: “and then a week before the land war started... you are going to have loads of blood coming through here, loads of casualties, loads of deaths, be prepared.” The spilling of blood is, of course, a symbol for the act of war itself.

I first met Bob, a large, quiet man, as he prepared for his War Pension Tribunal. The day before his tribunal he came to the hotel to meet with Kerry, the wife of an ill veteran who is involved in the association, and Malcolm Hooper in order to discuss his case. Bob immediately produced a letter from the National Blood Service saying that they did not want him as a donor because of information he has given them. Bob said that there were a number of health and safety guidelines at his place of work and that one of these guidelines was giving blood. He said that when he went to give blood he was asked “normal questions” but then the woman had asked what he used to do. Replying that he had been in the army, the woman then asked if he was in the Gulf, to which he replied yes. She then said that they would not accept his blood. Other veterans similarly complain that they had tried to give blood but had been refused. They suggest that this pointed to some sort of cover-up and proof that their bodies and their blood are unwanted and toxic. Veterans say they wondered what was wrong with their blood.

Although the suggestion of a blood ban may sound like paranoia, this belief is rooted in truth. When veterans returned from the Gulf there was a concern about leishmaniasis, as several dozen U.S. veterans of the war had come home with a serious form of this condition. Caused by a protozoan parasite endemic to the Gulf, this disease involves symptoms such as abdominal pain, fatigue, and fever; in the worst cases the spleen and

liver were found to be enlarged. The U.S. Defense Department therefore banned blood donations by all active duty personnel who had served in the war. The ban was revoked in late 1992, when additional cases did not surface (Wheelwright 2001:36). However, many veterans were not aware of the reasons for the ban and believed that their blood remained banned. Military personnel give blood regularly and often see it as an important element of their service. Martha, a Canadian veteran, similarly spoke of the blood ban in that country. However, unlike the reaction in the US and the UK where veterans were angered by the ban, Martha is pushing for a total “blood and organ ban in order to protect our Canadian citizens.” A website⁵ about GWS discusses the contagious aspect of the illness and suggested that the “USA war machine [was] coming home to roost - this time in your blood stream.” Furthermore, it says, “military personnel are prolific blood donors, but because they were told for years that their illness was in their head, GWS has contaminated the nation's blood supply with ‘germs from a terminal illness.’”

In the previous chapter I described the case of Mark. When discussing his symptoms, the presence of blood (bleeding gums, ulcers, bleeding from the anus) is clearly a concern for Mark. Disputing the suggestion that her husband’s illness is psychological, Debbie said,

Spitting up blood et cetera, that’s physical. They can’t say it’s psychological. Joint pain, OK, maybe that’s the brain saying that it’s worse than it is. But not bleeding from your backside and a cough.

There is the sense that blood and other substances are proof, tangible and real: evidence of the ravages of GWS on the body and the pure physical nature of the condition.

In the previous chapter I also outlined John’s suggestion that the preventative measures given during the Gulf War were part of an organized experiment and that blood was central to the recording of this experiment:

⁵ <http://csf.colorado.edu/forums/peace/96/nov96/0107.html> Thursday 21 Nov. 1996 report by Carole Marshall

To an extent at the end of the war there was a RAF medical unit going around from unit to unit and asking about NAPS tablets and effects, side effects. Also, some of the units were bled.... Blood was taking off them after the war. While they were still there and some of the units were bled before they went out. So, particularly 205, for instance, the general hospital: that was bled before it went out. Bled after the ground war, before they all came back. To see...what the uptake was on the vaccines...at the end of it, which is an experiment. There is no two ways about that. That is an experiment.

Their blood is read, owned and controlled by the military. Injections allow the military to enter the body and blood tests are conducted to track those bodies.

Veterans perceive their blood to be toxic, yet it often hides its toxicity. Although veterans demand ongoing and numerous testing, blood often does not reveal their suffering by testing positive to investigations. It can be viewed with ambivalence. As one veteran, Ben, explains, "I'd rather be shot by a bullet than have something like that, something coursing around my veins causing more trouble in the future." Blood may hide toxicity, ready to carry it through the body and make the veteran ill at some point in the future; thus, it contains potential danger.

SUBSTANCES AS COMMODITY

We have seen above how body substances are important as products of the body which can be tested. Some body substances, such as urine and bone are seen as readable body material. Other products of the body, such as spit, sweat and faeces are generally not considered in this way. The most important substance for testing is blood. Veterans' body substances can be seen as valuable commodities for scientists studying the condition and they often appeal, along with associations, for veterans to make their bodily substances available for testing. Veterans try to maintain control of their bodily substances; they make their substances available to those they trust and deny them to those they do not.

Many discussions about GWS lead to discussions about blood tests and the results of these tests. I was astonished by how many tests had been done on the blood of veterans,

but also how they demanded more testing. One of the main objectives at the AGM was the taking of blood from the attending veterans in order to test for squalene, the latest agent considered to be implicated in GWS. One full day was set aside for veterans to provide blood and leading up to the day the organizers lobbied to get everyone to participate. On the day one large meeting room was set up with a table at the front. The room was constantly full of people sitting in the audience chatting while a nurse and doctor stood at the front of the room taking blood from each veteran. It has also been suggested that blood can be used to diagnose GWS. A website⁶ discussing autoimmune technologies suggests: “In addition to helping identify patients with GWS, the discovery of anti-squalene antibodies might also provide a key to more effectively treating GWS patients. The presence of the antibodies in GWS patients indicates that the immune system is involved in the development of GWS.”

The future is seen in terms of future testing and veterans conduct an ongoing battle for more and more testing. Body substances, veterans suggest, will reveal the truth. Veterans remain convinced that tests will eventually reveal the cause of GWS; reflecting the ultimate faith in science discussed in the previous chapter. If they are experiencing suffering and pain, the body’s substances will reflect that. During one of our conversations Ed describes his unsatisfactory visit to the GVMAP:

So before I went down there I had abnormal tests. I was having blood tests every two weeks to monitor it. Umm basically I was at my worst. I wanted to commit suicide. I wanted to end it all. I was really at my worst. At the time I was under the Chinese doctor and the skin doctor. I was trying Chinese medicines, herbs and all that. When basically my blood pressure was high at the time. And I went down to, I mean this was right up to a couple of days before I went down to London with Jane. When I got to London all the tests, the blood everything, was normal. They said nothing was wrong. I mean they said I didn’t have high blood pressure. I mean, two days before I went down I had high blood pressure. Now surely, if you are anticipating getting loads of tests you do get quite frightened, if you are going to see a needle going in you. Your blood pressure is going to go up and mine was normal. You know, there was no reading, it was normal. They put gamma globulin abnormality reading down to alcohol. Umm, I mean I can go without alcohol. I don’t need beer.

⁶ <http://www.autoimmune.com/GWSTest.html>:

Although veterans demand ongoing blood tests, there is some anxiety about who maintains the blood and the results. Ken was skeptical of the GVMAP and said that they, along with the War Pensions agency were “still taking masses and masses of blood.” Ken questioned why this was so. He also reported that these institutions took blood, body scans, and X-rays and he felt that the veterans should get all the information, but he believed that the MoD was keeping all of it. Similarly, during a focus group a number of veterans complained that the GVMAP had taken a lot of blood, but denied taking any. One veteran said,

They take more and more blood and urine, but you don't get the results of the tests. So why are they asking you down two or three times, if there is nothing wrong with you?

A few minutes later another veteran expanded on these concerns and suggested that the government had known about GWS for years and that Porton Down was somehow involved:

I put money that the blood and urine from the MAP goes down to Porton Down. The Wiltshire police are investigating Porton Down.

These veterans suggest that their blood was being used, tested and filed secretly as part of some monitoring system or experiment.

VISIBILITY

A common complaint is about the invisibility of the illness. Veterans and their advocates emphasize that because their illness is internal it is not acknowledged. The invisibility of their illness was contrasted with the more obvious condition associated with war: the amputee. As Kerry suggests, “had they lost a limb everyone would be sympathetic.” Another veteran, Paul, explains:

People don't understand GWS because you look OK. The problem with GWS is it's internal: the nervous system, musculo-skeletal. It's not like

losing a leg.... You're not missing an arm or a leg. Everything is internally going wrong. It's like you've been microwaved from the inside out.

Paul uses a walking stick and, thus, his illness has been made visible. Whilst veterans would often discuss the missing limb as an image contrasted with their own⁷, I observed that the image most often associated with Gulf veterans was that of the once vibrant man now hobbling with a walking stick or in a wheelchair. Roughly 10-15 per cent of sufferers I met used one or two walking sticks and some reported that they sometimes found the need to use a wheelchair.

Many veterans described their frustration with the invisibility of their illness. Lee, an ill veteran who I met at the AGM explained,

Because I spoke earlier about how it's really funny that you feel unwell but you can't put your finger on it. You don't know how tiring that can be, in the end. You want your head to hurt. You want your leg to drop off. You want some fucking evidence of it to 'appen. Just so you can say 'ah hah, so that's what it is!' 'Cause after awhile it just really grinds you down. And there's nothing you can do about it.

The suggestion is that an obvious, visible illness would be a relief. As a disputed and internal illness, GWS denies sufferers the identifiable mark they desire. They use walking sticks; point out visible marks on their body, wear badges and put stickers on their car marking them out as ill and as Gulf veterans.

As mentioned above, during the early days of my fieldwork I stayed in Leeds to observe a number of War Pension Tribunals. I arrived at my hotel and waited for Kerry to arrive. She soon walked into the lobby with a man with a walking stick who had a slow rolling gait; each step a struggle. She introduced me to the man who was her husband and one of the leaders of the NGVFA. Whilst Kerry and he were checking in at the hotel reception

⁷ A common perception is that children born to GW veterans are likely to be born missing limbs. As though the child embodies the war experience of the father with all the connections with the image of the war veteran as an amputee. In Chapter 6 I will discuss the predominant role birth defects play in GWS narratives.

he asked for a large pint of water, as he “needed to take a lot of pills.” Once he was given the water he proceeded to take 18-20 pills in the hotel reception. This was not to be the last time that a veteran took medication in front of me during one of our interviews.

As mentioned above, discussions of GWS inevitably become discussions about the testing of body substances. In an attempt to prove their illness veterans have undergone a plethora of testing and plan to undergo more testing in the future. Such a focus on testing can be seen as an attempt to make the invisible visible. Just as veterans sometime walk with walking sticks and wear badges marking them as a member of a Gulf veterans’ association, tests are tangible marks of identity as an ill Gulf veteran. However, veterans often express their frustration that tests most often come back as “negative” pointing to the conclusion that there is nothing wrong with them. One veteran, Steve, suggested that coming to the AGM and meeting with other ill veterans allows him to “see” the illness. The community makes the illness visible:

Everything [tests] that comes back is OK, like so everytime you are back to square one. What is it then? What’s all this that I could have caught there and this week I come here and I actually can see it with my own eyes.... I am expecting every result to come back bad, if you like... like I’ve got something. I suppose for the past ten years I’ve just been expecting to die... every time a result comes through. But as I say everything comes back clear. And that is why I’m glad I’ve come up here. It has opened my eyes.... Now that I have been here as a mark of respect to the people who have already died I think I will... take part in the organization and be there as a body. To show my support [and] do more tests.... Everyone I seem to know, there is a negative attitude off them... Um, because you look all right. There’s nothing the matter with you, like. They don’t seem to be a lot of support there.

Becoming part of the association also means, for Steve, to give his body and subject it to more testing. Participation and membership involves the body in a very direct way.

The desire to make the illness visible has developed into a desire for tests such as MRI scans. One scientist is leading the way in such testing. Hayley, the Texan scientist funded by Ross Perot, is seen by veterans and their advocates as producing the most

compelling evidence in support of GWS. Hayley's work attempts to make the illnesses seeable. Body substances and parts of the body, veterans propose, will reveal the suffering they experience.

SHIFTING BOUNDARIES

Lee explained that in 1993 he began to feel unwell. He said that he had:

A general feeling, like when the word is on the top of your tongue but you can't get it or can't get an itch. I knew there was something wrong, but just couldn't put my finger on it.

Lee explains that he felt like he wanted "to be stretched on a medieval rack" and he feels he was smaller, shorter than he used to be. Everyday, he said, he feels like he has been hit by a truck. Lee conceives of his body as a closed system with limited resources and sees the vaccines given to him as overloading his system. He could cope with a few:

But when you've got *multiple* ones whizzing all around your system the white blood aren't Lynford Christie. There's not enough of them to deal with all what's in ya. You cannot keep putting a foreign substance into a sealed system without problems happening. It's like hydraulics, it's like a car. You can't just keep filling up with petrol. It will only take so much....any sealed system can only take so much and that's the same with things like that. They overloaded the system that couldn't cope.

Some veterans talk about their bodies actually changing form and shape, the boundaries have shifted. Two veterans think they have shrunk, and many say that they are bigger, fatter than they were. Other veterans suggest that they are smaller, thinner, that they have lost bulk and weight. Paul, introduced earlier, explains another effect of GWS on the body:

A lot of veterans have lung capacity problems and see specialists. Their lungs have physically shrunk because of GWS. And they've got that there as an accepted condition. [How would you describe your body?] I've collapsed. If you imagine a balloon being blown up: there's air in it, it's tight. It's just collapsed. The air's gone out of it: nothing there, there's nothing inside.

Another veteran, Sean, explains that he feels like an “old man,” that he is “dying from the inside.” Tom says:

Everything we had- the NAPS, the vaccines- pick something up or been given something that’s slowly eating away at me. It’s dragging me down slowly. It’s like the immune system isn’t fighting off what its supposed to be and something inside me is stuck there.

Veterans suggest that their bodies and their body boundaries have been altered by the exposures in the Gulf War. The body they used to know and its relationship to the world has changed. Veterans also commonly say that they bump into things and drop objects, as though they are unsure of their bodily place in the world. They are uncertain of their external boundaries as well as their internal barriers.

EXTENDED BOUNDARIES

The perception of the shifting nature of body boundaries suggested by sufferers can be seen as part of a larger experiential system to which modern soldiers are exposed. In our contemporary era of nuclear and smart weapons the ability to destroy large numbers of bodies is matched by a partial preemptive disappearance of the body from representations of war (Gusterson 1991). The media representation of the Gulf War “was remarkable for the way in which it treated bodies as objects for mechanical enhancement, weapons as surrogates for the bodies of warriors and, above all, for the extraordinary visual and thematic absence of dead, maimed, mutilated, strafed, charred, decapitated, pierced human bodies in a heavily televised war which surely claimed at least 100 000 casualties” (Gusterson 1991:49). Furthermore, supremacy in the Gulf War was often portrayed in terms of the allies’ ability, through technology, to transcend the limitations of the human body and to re-engineer the human body. Whereas the Iraqis were constrained by their need to sleep and their inability to see in the dark,⁸ the allies were enhancing their bodies and overcoming the limitations imposed upon them by their human bodies.

⁸ Interestingly, in the recent conflict in the Gulf (2003) Donald Rumsfeld expressed extreme anger towards Syria because they were said to be smuggling night vision goggles to the Iraqi troops.

The vulnerability of “bodies to chemical and biological weapons was addressed with chemical protection suits and inoculations which supposedly armored ordinarily fragile human bodies against such threats” (Gusterson 1991:49). The bodies of allied warriors thus had a post-human, hybrid, cyborg-like quality which was emphasized by the media. Most images of the soldiers involved them wearing masks, full NBC suits, or night goggles, often obscuring their human qualities. Thus, bodies of soldiers had their boundaries extended and strengthened; yet, one must wonder what happened to one’s view of one’s body when these technological enhancements were stripped from them. By enhancing bodies, creating external barriers and strengthening internal ones, the measures enhanced the vulnerability, frailty and ineffectual nature of the human body. Similarly, the focus on technology results in an impoverishment of the human body and its boundaries.

LEAKY BODIES

When Gulf veterans talk about their bodies they talk about them as vulnerable, with barriers which are easily transversed. Body boundaries are porous, allowing dangerous outside elements to enter. In their discussions of their illness veterans often talk about substances which came out of their bodies. Martha told me of a woman she knows who was too ill to meet with me: her breasts “oozed green fluid”. A number of reported symptoms suggest an anxiety with one bodily substance being mixed with another. Bob, for example, said that he was concerned that he had found blood in his semen once and that he had found blood in his faeces.

As mentioned above, veterans often say that they “leak” and that they are unable to control their bowels. Many veterans report that they need to wear diapers because urine and faeces “leaked” out of their bodies. Orifices are discussed with anxiety. Women are thought to be at risk from catching GWS from their partners, with the mouth and vagina as the major entry points, as will be discussed in Chapter 7. Body orifices are also treated with anxiety in regards to the way they allowed exposures into the body. John described the risk of DU, particularly in terms of the way it entered the body through vulnerable points.

DU, my own belief is that mine was through breathing it in.... From the suspension in the air...[it] got into my lungs and into blood stream and into my kidneys. I've got scarring to my left kidney... which I never had prior to the Gulf.

Bodies are seen as vulnerable, particularly because they allow substances and toxins in. Bodies are permeable, allowing agents from the outside to pass into the body. But they are also porous and allow substances to leak out of the body.

Blood-Brain barrier

One of the most discussed body barriers is an internal barrier implicated in one of the most commonly cited GWS theories of causation. The blood-brain barrier is an internal boundary protecting the brain from toxins carried in the blood, states this theory. However, in Gulf veterans this barrier had been compromised, leading to many of the symptoms they report. In 1995 experimental evidence for a toxic synergy between Pyridostigmine bromide (PB), the active agent in NAPS, and insecticides in chickens had been announced by Duke University researchers in and published in the spring of 1996 (Wheelwright 2001). The main author, who focused on the synergistic effect of the Gulf exposures, had a theory, which was to become popular with veterans and their advocates. Abou-Donia, suggested that PB had somehow got into the brains of veterans. But for PB “to have caused injuries to vets’ memories and concentration, the pyridostigmine must have passed from the bloodstreams of the subjects to their brains. The scientific understanding was that this drug normally could not cross the blood-brain barrier; however, at the end of 1996 an Israeli team, funded in part by the US Army, published an important paper suggesting the mechanism by which this may have occurred” (Wheelwright 2001:385). Friedman et al (1996:1382) described an experiment on mice that had been put under conditions of stress and when PB was injected, the drug affected their brains. Previous animal studies had shown stress-induced disruption of the blood-brain barrier and, so, the suggestion was put forward that the stress situation associated with war allowed pyridostigmine penetration into the brain. The study claimed to have found that the “blood-brain barrier had breaches and leaks that could have resulted in

chemicals and bacteria and viruses penetrating the brain and chemicals in the brain leaking into the bloodstream.” This study suggested that PB affected that central nervous system of Gulf veterans and caused symptoms such as memory and concentration problems; thus, the idea that PB transverses the blood-brain barrier by way of stress gained popularity.

In October 1999 a Defense Department consultant made news with the publication of a scientific review of PB. Her conclusion was that the use of the drug by 250 000 soldiers “cannot be ruled out” as a source of the nagging illnesses. “Stressful or other special conditions may allow PB to breach the blood-brain barrier and penetrate the brain, producing effects that would not ‘normally’ occur” (Golomb 1999 in Wheelwright 2001:386). Six months later, however, the scientific opinion began to shift when the Israeli findings on PB’s penetration of the brain were not duplicated by others (Wheelwright 2001; see Grauer et al 2000). Veterans and their advocates, however, remain convinced of the blood-brain permeability hypothesis.

Hooper is confident of the permeability theory and often speaks of the compromised blood-brain barrier, veterans’ leaky guts, and gut permeability. This view of veterans as having compromised body boundaries pervades his work. At the London U.S. Congressional meeting in 2003 Hooper discussed Goran Jamal’s work, which suggest that GWS involves damage to the nervous system. He suggests that the nervous system is a sensitive organ to insult especially by toxins. Furthermore, he puts forward that “the whole system was protected by a shield: the blood-brain barrier”. Although this barrier is normally closed, something in the Gulf War, he suggests, opened the barrier and let in toxins. Hooper adds to the theory by connecting the blood-brain barrier to that of other membrane barriers which line “the gut and the lungs” and that these barriers “prevent many compounds from crossing these membranes” (Hooper 2003:1). However, some chemicals, he suggests, are known to “open these tight cell junctions, allowing free transport into the previously protected areas of what ought to be excluded compounds.” Hooper (2000:6) said:

The compromised gut wall is 'leaky' and allows the opioid peptides resulting in extensive modulation of peripheral and central opioid effects. The central effects include changes in behaviour, cognition, perception and mood via major effects on the higher executive functions.

When the gut wall has increased permeability, the "opioid peptides (casomorphin and gliadomorphin) which would normally be excluded are absorbed into the blood stream, giving rise to diffuse symptomatology and systemic dysfunction" (Hooper 2003). Hooper links this to the inflammation of the gut which, he cites, is common among ME patients and GWS sufferers, as are allergic reactions to foods including gluten. The "compromised gut facilitates the development of a gut dysbiosis which in turn can give rise to autoimmune diseases, with very significant and chronic damage to health" (Hooper 2003:1). Thus, Hooper further emphasises the permeable nature of other body barriers, particularly the gut. In so doing, Hooper describes the bodies of Gulf veterans as leaky and vulnerable.

As mentioned previously, Hooper recommends the IAg test and says that "other chemically poisoned people; in nearly every case, [had] high levels of IAg appeared in their urine." He continues to suggest that, "For this to be happening means a dysfunctional gut and sufferers from these overlapping conditions show evidence of a "leaky gut", i.e. an increased permeability of the gut wall due to damaged membranes. Hooper explains that this happens in people who are described by certain psychiatrists as exhibiting 'MUPS' ('multiple unexplained physical symptoms')." He suggested that their "multitude of symptoms are not 'unexplained' at all and that they are entirely organic in origin.... In summary, the IAg system involves the gut, brain, endocrine and immune systems: in ME, it is clear that the biochemical deficits are extensive. Detoxification is essential. Hooper sets out the basis for the neurological damage produced by a common mechanism but by different insults, biological or chemical, producing symptoms common to these overlapping syndromes, including ME" (Hooper 2003:1). Thus, Hooper (2000) connects the gut function to other parts of the body, including the immune system. He recommends the Gulf veterans maintain a non-dairy, non-gluten diet because food contains toxins and allows these toxins to pass into the

body. Hooper also is concerned about additives, sweeteners, colouring agents and “other ingredients in ‘junk’ foods,” as well as pesticides and preservatives “routinely consumed in food” (2000:13). Many veterans have taken his advice and altered their diets and focused on flushing ‘toxins’ out of the body and minimizing their entry into the body.

Ann, the veteran introduced in the previous chapter, joined the army in 1975 and trained as a nurse. She took voluntary redundancy in 1993 as part of ‘Options for Change’. In 1997⁹ she began to notice a number of symptoms including blurred vision, dimmed vision, muscular problems, excessive sweating and increased irritability. Her personality started to change and she had dental problems, stomach and gastric problems and she was later diagnosed with Irritable Bowel Syndrome. She said her main symptoms at present are fatigue, sweating, temper, and irritability and when I met her she used a walking stick to support herself. When I asked Ann if she did anything special for the sake of her health she responded:

I didn't actually tell you about, you've heard them talk about Paul Shattock? IAg, whatever, that test that they talk about? Well, I've had that test done and I've actually got that. I know it is an experimental test. But it goes on this permeability thing, doesn't it. If you've got gut permeability, so you are going to have brain permeability. So if you eat gluten... then it gets through and it causes all these cognitive [problems]... And I think, again that the vaccines have caused this kind of, or even the organophosphates.

Bodies of GWS sufferers are understood by them and their advocates to be leaky and porous. Inner barriers that are understood to protect the parts of the body from contamination by each other or by toxins are permeable, allowing substances to flow freely between them. Food is problematic as it crosses body boundaries, but it is also seen as potentially dangerous as a carrier of toxins that traverse already weakened barriers.

⁹ Although Ann said her symptoms began in 1997 she said that now that she looks back she can link other problems which started in 1993 to GWS.

INTERNAL RISKS

Veterans see their bodies as perennially at risk. Risks are ever-present in the form of toxins and chemicals in the outside environment, yet one's internal environment is also a source of risk. Illnesses lie dormant in the body, waiting to be triggered, as will be discussed in the next chapter. As mentioned in Chapter 2 veterans see themselves as ill as a result of exposure to toxins in the Gulf War. They perceive the war to have been a uniquely toxic environment. However, the world in which they live remains toxic and full of risk. Many veterans remain concerned about the amount of toxins and chemicals present in their environment and suggest that they are more sensitive to such poisons as a result of Gulf exposures. William emphasises his concern with past and present exposures:

I have now heard that as well as the inoculations; some of these things had additives put in. Now, I don't know what they were, but I do know that any chemicals in this day and age can damage body parts. Heavy metals have always been known to be very damaging. I don't know how they work, but they do damage the body. Radioactive things damage the body. I believe that many chemicals in everyday use can damage the body. I feel that by pumping things into your body and your blood stream can have a very detrimental effect. I'm not qualified to say how, but I have a belief that they do.

William also suggests that he is concerned about a number of issues including chemicals in the environment. He explains that he used not to be worried about such things, but now he feels he is more susceptible to them.

I'm now using solvents at work I always try to put a mask on and wear gloves so I don't come in contact with chemicals. I try to avoid foods that I know have a lot of additives. I always wash vegetables and fruits before eating them because I believe they spray them with chemicals which I don't want to take. I rarely eat chicken because I believe that they are kept in terrible conditions and inoculated. I try to avoid eating very much meat. I believe most of our meat is filled up with inoculations and growth hormones. I nearly always buy organic things in the shops.... We use too many plastics: they are in our environment. I do believe chemicals do build up. I always have windows open. I feel there are a lot of chemicals and modern substances that giving off vapours the whole time that are

very bad and I think they will be proved in the future to be very harmful to people's health.

William explains that he has only been taking such precautions in the past ten years or since he had become ill. He is unsure what had started these concerns, but wonders whether it is because these issues had only recently received press coverage. However, he also said that

At one stage of my illnesses I felt I had been poisoned. I felt so wretched. Every part of my body felt awful, like I had been poisoned.

William also suggests that he feels there is more aggression and anger in the world because things were not as simple as they used to be. He links poison and toxicity to the state of the world and society.

Many veterans also complain of Multiple Chemical Sensitivity or more general sensitivity to environmental toxins. Ann explains,

I have increased chemical sensitivity. [I] can't wear perfume, had to change deodorant. Rash...my skin splits, itching.

Veterans commonly explain that they are more sensitive as a result of their experiences in the Gulf. This sensitivity is entirely linked with a distinction between natural substances and man-made/ toxic substances. There is the suggestion that the bodies of veterans react adversely to anything unnatural. As Donald said,

We are going against nature. In the Gulf too we messed around with things. Sometimes get away with it. Sometimes you don't. Why expose children to pylons? Hotspots are about people with leukaemia living near pylons. Still they say no. But tell that to those with leukaemia. Those autistic children with MMR. For all our years we had three vaccines: it's all financially driven so why we do these things? Win some and lose some. Can't all be bad and harmful and not none bad and harmful. They tell you not to have too many x rays.

When I asked Paul if he is concerned about GM foods he suggests that he is concerned, yet he also made a link between GM foods, another war and its toxic exposure.

Monsanto. That goes as far back as Agent Orange and Vietnam. Still people dying in Vietnam of leukaemia through Agent Orange. I try not to eat GM foods. It's man made. [Do you eat only organic food?] No I don't eat that, but I try not to eat GM foods. [Are you concerned about chemical sensitivity?] Yes. I get that. I'm more sensitive now to cleaning stuff like bleach. Petrol fumes, as well, bring me back to the Basra Road. Especially burnt [smells remind me of] petrol bombs. Like when kids get a car and burn it out. It never effected me before, but it effects me now. more sensitive to it now. [Do you have any concerns about mobile phones?] I have a mobile phone and I keep it in my pocket. Not in my inner pocket, in my jacket pocket, but once I'm in the house I'll leave it in the corridor.

Whereas the environment and the toxins contained in it are uncontrollable, as mentioned above many veterans have altered their diets in response to their illness. Able to control what they put *into* their bodies, veterans commonly restrict their diets, a suggestion advocated by Hooper. Ed's diet is illustrative of the kind of Gulf veterans' altered attitude to food:

My diet, I've become sensitive to gluten products. Milk, I can't have milk. I have to have a different butter. A vegetarian butter. A gluten-free butter. Umm cheese, I can't touch cheese. Alcohol, I have to drink in moderation. Umm, what else is there? I can only have plain crisps. Because of the flavours... e numbers. Chinese food I can't eat because I'm on the sodium glutamate, spicy food. Anything, basically I have to check e numbers to see what's in it. Ummm it can be a pain. You spend double the time when you go shopping for food checking what's actually in there.

We can see here how veterans encompass theories from the world around them, as we saw in the previous chapters. Food sensitivities and allergies have been increasingly focused upon and are often tied into notions of identity. Veterans, such as Ed say that because of their illness they are more sensitive to certain food and certain products. Many veterans maintain the gluten-free, dairy-free diet recommended by Hooper in an attempt to reduce complications of the "leaky gut," discussed above. Much of this sensitivity is linked to artificiality and what they see as toxins. Dietary restrictions most

often stem from an attempt to limit the amount of toxins entering the body. Ann describes how she has created a regimen focused on “de-toxing the body”:

Yes, I've got the diet and I've started taking multivitamin tablets. I'm also on MSN, which I think we talked a little bit about. What's that? It's the sulphur, the organic sulphur type stuff. I also take flax seed oils, which has got Omega 369. I take one of them daily. I also have Epsom Salts to have a bath. It helps you sweat out and it also helps you to absorb in. See, magnesium's a problem and that's what it is, Epsom Salts magnesium. Umm, so that's what I do. I filter my water now, what I drink. I, ahh, I mean, my diet has changed quite radically because of what I'm eating now.... Yes. I feel that at some levels, the food, you are what you eat and I believe that. Our engine can't work without petrol.

Veterans like Ann are concerned about putting the correct (non-toxic) things into the body and leeching out the toxins from inside their body. John explains that he does a number of things to improve his health. All of these things are intended to extract toxins from the body. He says that he takes vitamin C daily in order to boost his immune system and because its “got an anti-toxins in it.” Thus, it is “common sense to try it.” John also takes ‘Maximul’ because “if you understand the basis of body function and keep those basics up and running.” All of these things, he says, “help to remove the toxins.” He continues to described the things he did to reduce toxins:

And to increase the water you drink as well. Water intake to flush as much of the crap away as you can. I do saunas as well. Which again is the advice that my neurologist said- ‘John, take as many saunas as you can.’ And he referred to arsenic. He said arsenic, for instance, can take many, many years to come out of the body. And, of course, arsenic was one of the chemical compounds that we were exposed to. Either from the oil fields or from the munitions that were fired.

A common belief is that the body conceals illness inside itself. Illness is always present but lies dormant, waiting to be activated by some external agent: a trigger. It is as though individuals are always ill or are in a constant state of potential illness. Triggers are diverse, but often chemicals and other dangerous agents are identified. One veteran, Sara, explains her understanding of cancer:

I think it is something that lies dormant in your body. I think everyone has it and it takes something to trigger it... It could be chemical related. Maybe using a certain type of washing powder... All of a sudden one day you visit somewhere and it triggers it. Something that is dormant and something triggers it. I don't know what the trigger would be, whether it's chemical or something. I probably think it would be chemical. Some kind of manufactured drug, or bleach, or disinfectant, or something that's sprayed on crops. Just something that triggers it, but I think everyone's got it. And not everyone's found their particular trigger. Not everyone would have the same trigger. Just something that kicks it off.

The notion of dormant illness will be discussed in the next chapter, but it is important to note in this chapter on body boundaries that internal threats are also present.

CONCLUSIONS

The body is one of the places in which social concerns are symbolically enacted (Douglas 1966). Douglas showed that the human body serves as a mirror for society with powers and dangers credited to the social structure writ upon the body. The "body is a model which can stand for any bounded system. Its boundaries can represent any boundaries which are threatened and precarious. The body is a complex structure. The functions of its different parts and their relation afford a source of symbols for other complex structures" (1966:115).

Douglas has shown that threats to society are reproduced symbolically in conceptions of the human body: "we should expect the orifices of the body to symbolize its specially vulnerable points" (1966:121). The fluids of the body turn out to be a kind of language in which various themes find their voice. Bodily margins are thought to be specially invested with power and danger (Douglas 1966: 121) and "[m]atter issuing from them is marginal stuff of the most obvious kind. Spittle, blood, milk, urine, faeces or tears by simply issuing forth have traversed the boundary of the body". Furthermore, Douglas suggests that an anxiety about orifices suggests a corresponding sociological desire to protect the political and cultural unity of the group.

In thinking through issues of health and illness notions of barriers and boundaries are used as well as their permeation by bodily fluids (Claeson et al 1996). In their interviews Claeson et al (1996) found that talk of vulnerability of bodily boundaries shifted easily from the level of the body to wider social issues such as neighbourhoods and nations. Boundaries have a social significance. They mark off or contain areas of safety outside of which dangers lurk. Moreover, if one knowingly crosses such barriers one might be opening oneself to harm. Similarly, the words veterans use to describe the world of the body also orient their understanding of social interaction and politics (Claeson et al 1996).

Militaries emphasize certain boundaries such as that between men and women, soldiers and civilians, the fit and the unfit. Through a variety of practices soldiers are held up as different: they wear uniforms, they abide by certain rules. Militaries create strong borders which separate them from the rest of society, but internal margins are also important such as those between different ranks and different occupations. The military, however, could also be seen as a boundary-busting institution. Boundaries which are normally accepted are not present in the military. Military practices such as men living with, showering with, and bonding with other men are one example of the way expected boundaries shift in military culture. The ability to kill is another way that cultural boundaries are altered in military culture. Body boundaries are extended as the military, or the unit, is taught to be seen as one large body. Yet in the lives of the men I interviewed, the military was also border-breaking in that the military itself invaded their bodies. Through injections and pills the body was entered and altered. The body was extended and their outer borders altered through a variety of measures: NBC suits, night goggles, masks.

In Chapter 8 the notion of shifting boundaries in the military culture of the past decade will be discussed. I will suggest that the men's notions of permeable barriers and vulnerable body boundaries are a reflection of their specific experiences. Their body boundaries are no longer protective and definite in the same way that military boundaries are no longer structured and isolating. The body is symbolically enacting social

experiences and concerns. The main concerns about bodily substances are of its contagious nature (sweat, semen), with the substances as material to be interpreted (urine, blood), and with the substance as a way of flushing the body (faeces, urine, sweat). Body boundaries are seen as fluid, permeable and vulnerable unable to protect one from the ever-present threat of toxic risk. As will be discussed in depth in Chapter 8, there are a high proportion of sufferers who had supportive roles: the chefs, medical technicians, nurses. It is important to note that these jobs involve bodily substances and traversing bodily boundaries.

CHAPTER 5: “WE ARE THE ENEMY”

We have seen in the preceding chapters the way in which veterans experience the world as full of risk and danger, particularly in regards to the toxins they were exposed to in the Gulf War. Veterans show a great concern for body boundaries and the permeability of these frontiers. Just as there is an anxiety about body frontiers, so too is there an anxiety about inner boundaries. In this section I will extend the notion of boundaries and look within the body at that component which is seen as the consummate barrier to threat and illness: the immune system. My interviews with Gulf veterans were dominated by their focus on the immune system and its role in GWS theories. GWS sufferers almost universally see their illness as being caused by a weakened immune system which is seen as the result of the vaccinations and other exposures. Situating the illness in discussions of the immune system provides a biomedical and inclusive model for their suffering.

That GWS is due to an immune system reaction or failure was established very early on: the idea that it is due to a collapse of the immune system was mentioned in over a quarter of newspaper articles in the first two years of reporting. In a newspaper review of a Channel Four programme, a soldier is described whose “immune system has vanished. He lives in a room lagged with tin foil against the risk of infection with a blue plastic tube inserted into his nostrils” (Norman 1993). Others make a complicated link between allergies, the immune system and microbiology; such as in the following quotation from a Today article on June 23, 1993, “those who simply became allergic to the cocktail [of NAPS/immunisations]... will have to wait months, perhaps years, before their immune system recovers. They will get every virus going.”

In the early parts of the twentieth century, the most important threats to health were considered to lie outside the body (Martin 1993). The body boundaries themselves were seen as the main defence and the focus was on preventing the entrance of germs into the body (Clark and Cumley 1953: 103). Martin (1993) reveals that attention to the threats which lie in the environment outside the body, shifts to an emphasis on the defences within the body. As Shorter explains, since the “1960s immunology has become the

queen bee of the medical sciences, in the way that pathology was in the nineteenth century the foundation of all further knowledge” (1992:314). The concept of the immune system under assault and giving way under pressures of twentieth century life is a key idea in understanding illness beliefs at the end of the twentieth century (Shorter 1992; Wessely 1997). This concern with the immune system can also be seen to draw on the fears of another late twentieth century disease affecting the immune system: AIDS. Explicit links were made in media reports between GWS and AIDS and central to this connection is the involvement of the immune system. We can see the way GWS was being talked about and framed was influenced by popular understandings of illness.

BOUNDARIES AND BORDERS

In my interviews there was widespread agreement that the immune system was something contained within our bodies that protects us from disease. Discussion of borders and boundaries permeate talk of the immune system, which is seen as a barrier to illness. For most people, it is this system which determines whether one is going to get ill or remain well. Such findings reflect Martin’s (1994) work and as she states, it “seems to follow from a robust notion of an internal system of protection that the system exists to ward off continual threats. People focus their attention on the well-being of the system rather than on creating an environment that is free from threat” (p. 67). In my interviews, people frequently express the notion that the environment surrounding our bodies contains many dangers that cannot be eliminated. Staying healthy is primarily about maintaining a strong immune system, but for sufferers of GWS, their immune systems are damaged and, thus, this defensive boundary is compromised. They are left vulnerable.

The immune system took centre stage right at the beginning of my fieldwork. My very first contact with veterans was when I made a phone call to Ken, the head of one of the veterans’ associations. As we began speaking about GWS he said to me: “it’s all down to damage to the immune system because of vaccines. Like a house that has been damaged, it will fall down.” We can see that the immune system is seen in terms of barriers that are strong and solid when well, keeping the person free from disease. However, when they

are permeable and fragile, like those of Gulf veterans, they will allow the whole system to collapse. Harry suggests that the immune system is a:

Barrier towards disease, really like. I'm not saying it's a 100 percent barrier toward disease, but I think if it's affected in any way you have more chance of becoming ill.... I think everybody's different. A lot of us are getting a lot of the same conditions coming through but at the same time some people are getting different conditions, I don't know, I think everyone is an individual.

Harry sees the immune system as a barrier, but one that even in healthy people is not completely infallible. This would explain why all people, even those with healthy immune systems, are vulnerable to disease. Harry emphasises the individual nature of the immune system and of the illness itself.

The protective effectiveness of Gulf veterans' immune systems differs from healthy individuals. When I asked Ed, the veteran discussed in the previous chapter, what the difference is between him and a healthy person, he responded:

Well, I mean, they are strong all the time, they are able to do physical exercise. Ummm, you know, where I would fall after like, well... I can't run...I get out of breath after 5 minutes, where a stronger person with a stronger immune system would be able to cope better than I would.... Well, they've got a solid wall there. They have got whatever in reserve to help them, back them up. They're more fitter and healthier.... But they have got a good solid defence there. And it can recognise the symptoms early to fight them. The brain knows, the body knows, 'there's an infection coming here, let's fight it'. Where ours is a lot slower or non-existent.

As Ed suggests, a healthy person has a strong perimeter that is able to resist threat. As a GWS sufferer, Ed imagines that his immune system is permeable and does not provide a solid defence and this makes him less able to cope with surrounding illness. A strong body is equated with a strong immune system. Ed also imagines that his immune system, along with other sufferers, is sluggish and unable to "recognise" illness effectively. Martin's (1993) history of the immune system shows that the interior lines of defence of

the body are further elaborated in time. “‘Recognition’ is fantastically honed and refined and the immune system ‘tailors’ highly specific responses that can be almost unimaginably various. Drawing on an immense genetically generated and constantly changing arsenal of resources, the body can hardly rely on habit any longer” (1993:72). The immune system is agile, constantly learning, remembering and responding to the world. In immunology the emphasis is on flexibility and adaptability (Martin 1994), but veterans suggest that their body was in the end unable to respond to the sheer demands of flexibility upon it.

Recognition is key to understanding the immune system. This subject will be explored in depth below; however, it is important to note that veterans understand vaccines as introducing information into the body so that the body is able to “remember” and provide protection when faced with the real threat. Veterans suggest that vaccines prompt the immune system to produce a barrier to that specific threat. Jeremy, a well Gulf veteran, suggests that a vaccine is a:

Prevention. The solution goes into your blood stream to help fight with the immune system. Helps to fight alongside your own immune system. If you do get the germ, the bug, you do have a barrier. Injection is a barrier.

The immune system is a general protection, but can develop specific barriers through inoculation. Veterans, however, suggest that the body was overloaded and unable to respond to each specific education/ vaccination in the Gulf, resulting in a breakdown of the general wall of defence.

GWS sufferers understand their illnesses as arising out of this weakened immune system. Their immune system is “down” and, thus, they are left defenceless and open to peril. They are vulnerable to the perpetual threat of infection and illness. Veterans say they continually suffer from colds, flues and coughs: the most common forms of illness. They suggest that unlike healthy people, they do not have a strong border to hold off germs and viruses which are present in the outside environment. As Ben says,

I was never susceptible to cold and flu before, but now I catch everything around. It's like everything, any germ that's around, 'come and get me!' I am a perfect host for them. Most of my medical history has been since 1991.

A common theme of veterans' narratives is that not only are they more vulnerable to illness, but when illness appears it takes over more completely and for a longer period. Whilst for "normal" people, germs and bugs are held at bay and only take hold rarely and briefly; GWS sufferers have no such defence. Another aspect of this inactive immune system, veterans explain, is that cuts and other skin conditions do not heal as they are supposed to. It is as though the skin, the body's visible meeting point with the outside environment is not coping with the encounter. Veterans constantly compare themselves and their systems to "normal" and healthy people and they come up lacking. When I asked Paul what he imagines happening inside a healthy person's body when they get a cold he said:

I think the immune system will fight it, obviously. Or put up antibodies; is it antibodies? The cells fight. The white blood cells fight with the red, or something. Something is carried in the cells. [How this differs when a Gulf veteran gets a cold?] I think they haven't got the immune system to fight it off. That's the bottom line. Their health is collapsing. Some get colds for months.

A concern with the immune system and the permeability of body boundaries can be seen to draw on the fears of another late twentieth century disease affecting the immune system: AIDS. Links are often made in the media and amongst veterans between GWS and AIDS. One early media report said of GWS: "It's like AIDS. It's not the AIDS that kills you, it is the collapse of the immune system" (Walker 1994). A number of veterans I spoke to made a connection between GWS and AIDS. Richard, a well Gulf veteran, said that people with GWS "look not dissimilar to those dying of AIDS." He suggests that they looked weak and emaciated and that their immune systems had turned on them.

When I asked another veteran, Mick, what he felt was the illness most similar to GWS.

He said,

To GWS? AIDS, I suppose would be the nearest thing to it. The way, how it effects your immune system. It eats away at it. These people look as though they've aged 40 odd years in the matter of a year.

In some cases the links between GWS and AIDS is made more direct and more sinister. A veteran, who I later met, was featured in a story in *The X Factor*, a magazine about “cover-ups, paranormal, mysteries and UFOs”. The article discusses how one veteran claims that cytokines were injected into troops to defend against CBW attacks, but there was not enough to go around. Consequently, he says, “it was decided to include a second, untested component that duplicated the effect of the cytokines”. The article continues to say “Parker claims that this second component was HIV genes...the consequences of injecting HIV genes- which allegedly cause the AIDS virus- are not known. The worst possible scenario, some claim, is that allied troops may have been infected with the condition that allows for the development of AIDS” (1997:542).

THEORIES OF CAUSATION AND THE IMMUNE SYSTEM

The immune system is central to the theories of causation of GWS, including severity of illness and infection rates. The illness involves a depleted immune system and the various specific illnesses and symptoms arise out of this deficiency. The immune system theory enables veterans to make a coherent, inclusive system out of the incoherent. It provides explanations to a number of anomalies that are indicated by their critics: such as why it is that the majority of veterans remain unaffected.¹ When asked why they think some got ill and others did not, most veterans suggest that this was due to the pre-war strength of an individual's immune system². As Cameron, an ill veteran, discusses,

¹ It is important to note, however, that sufferers and their advocates commonly suggest that the majority of veterans are ill. They suggest that many will not come forward for fear of what might happen to them. I have also been told on many occasions that most veterans are ill, they simply do not admit it or recognize it in themselves.

² Levels of exposure and/or location also play a role in theories of causation, as discussed in Chapter 2.

It could be their immune system, in the first place, were a lot stronger than the guys that have developed the illness. The general health I think before they went out there. Not the state of mind, but a weaker physical, the immune system, things are going to attack you more.

Similarly, those who remain healthy make sense of their avoidance of illness in terms of their immune system. Healthy veterans say they either do not believe that there is such a thing as GWS or suggest that they were somehow different from those that became ill. The immune system is central to this difference. James, a healthy Gulf veteran says,

Maybe I had a tough immune system. I was tough and healthy, so it protected me.

Again, immune system potency and bodily strength are synonymous.

This model also responds to another question upon which non-believers focus. Critics of GWS often point to the fact that the illness emerged many years after the end of the war, as evidence of the absence of a unique disease entity. Indeed, veterans are still coming forward 12 years on. The theory that the immune system naturally degrades with age allows veterans an illness model which responds to such criticism and scepticism. This theory of the illness provides an explanation for why it is that the illness took years to emerge and continues to appear to this day. Furthermore, this theory follows on logically from discussions above, which establishes that young veterans were more protected by their immune systems. The following discussion took place within a focus group of leaders and members of the association. Jack says,

In the past people have turned around to John and said, 'OK, if there is a GWS why weren't all vets ill three years after the war. Why are more and more people coming forward?' So people ask John if GWS exists why are there not more coming forward? Gulf War illness effects the immune system. When we went to the Gulf we were young and our immune systems were immaculate. Obviously the older we get our immune system gets slightly weaker. So therefore all these illnesses and all these various things that we have been subjected to whether its been NAPS tablets, whether it be oil well fires, whether it be depleted uranium, whether it be

injections, all these things then as we get older our bodies then can't fight so that is why more and more people are becoming ill.

John adds to Jack's comments:

There is clearly a body burden on the troops. For some people it's greater than others. And I believe...the younger ones at the time of the Gulf War when they came back didn't become as ill as the older ones. I know that's quite obvious to some people. You did have many, a lot of reservists at the age of 40 or 50 at the time of the Gulf War who became ill very quickly after the Gulf War. The next in line you have those who were at the time were 30 years old, like myself, who became ill [in the] '93-'96 time period. And then after that the younger ones as they get older their immune system are breaking down because of the body burden that they are carrying because of the vaccines, the DU, or the chemical compounds that they've been exposed to, we don't know. I personally believe that the vaccines and medication we were given were the first insult to the immune system and anything else after that was secondary. And whether those people that were insulted at the time their immune system didn't recover in time to react against the organophosphate compounds that were in the air. Or indeed, DU. Maybe the younger people, their immune system did recover to give them protection. Maybe for younger people their immune system was strong enough to bounce back and protect them.... But, ah, it certainly seems to be a burden on the immune system that seems to have caused the problems. All our illnesses are auto-immune-type related or they seem to be.

Immune systems are understood by veterans to naturally degrade with age; but the above quotations reveal that there is a more complicated relationship between illness, exposures, immune systems and age. John suggests that young soldiers' stronger immune systems may have been able to respond more quickly to the initial "insult"³ of vaccinations and, thus, were prepared for the next set of exposures. Young soldiers' immune systems are more robust and are able respond more quickly to the outside world, he explains. This resonates with Martin's (1994) suggestion that effectiveness of immune systems was based on the notion of flexibility and an ability to adapt to novel stimuli. Veterans suggest that the vaccines and other exposures somehow remain in one's body.

³ Insult is an interesting choice of word as it invokes notions of offence, indignity and assault, but is also commonly used in biomedical discourses.

The immune system if strong and young is able to hold it at bay, but once the immune system degrades the burden is too much and illnesses take hold. The body is in a constant reactive state, responding to the exposures contained in one's body and the outside world. However, Jack suggests that there comes a point where the immune system degrades too much and the illness succeeds in taking control.

In some cases specific individuals were used to illustrate this age-related theory. Major Ian Hill⁴ was a Gulf War veteran who died at the age of 54 "of GWS"⁵ in March 2001. Very much in the public eye, Hill was a leading GWS campaigner and the founding member and chairman of the veterans' association. He is compared to the present chairman of the association, who took over the public face of the illness following Hill's decline. The present chairman is younger, and, thus, his illness appeared later. Although the importance of age in the onset of the illness was often cited, I found that the veterans did not strictly adhere to their own theory. There were many exceptions and informants would often contradict this theory in the same interview. One thing struck me over and over again as I was studying GWS: there seemed to be no laws, no patterns nor rules to the illness. Veterans are clearly trying to make sense of the chaos of the illness by creating patterns, regardless of whether or not they strictly believed or adhered to them.

Immune systems are not created equal. Some people's immune systems were able to cope with the vaccinations in the Gulf, and thus, were not later affected. The immune system is also seen as highly individualised, with different factors affecting its strength and ability to protect. Age and physical fitness are regarded as central to this understanding: older veterans are more susceptible to the exposures because their immune systems are innately weaker. This does not mean, however, that those who were young and fit are exempt. Instead, a linear model of the illness is presented. Older veterans are seen as more vulnerable and, thus, succumbed first to the illness. As Debbie, who was introduced in Chapter 2, stated:

⁴ Major Ian Hill was a Royal Army Medical Corps theatre nurse reservist. He was flown home after reacting badly to the cocktail of vaccines given to soldiers.

⁵ On his death certificate his death is reported as due to a blood clot, I was told by a variety of scientists.

If you look really closely to it, it's the age of them. The younger ones are slightly fitter at the moment. But as time goes on they're not. And really ill ones that I've seen are quite a bit older than Mark. They've been in their 40s and that... I think a lot of it is to do with your fitness. As soon as Mark stopped work he had problems... as soon as he stopped work he got problems straight away. I think it gets you when you are at home.... And the ones that were in from the TA they weren't as fit as regular soldiers. All the TA are coming off the street, at the end of the day. I think that has a lot to do with it as well.

Thus, the threat is ever present. Nobody is safe from the illness in this theory, as those that were young and strong and remain disease free at present are still at risk. As we can see from these comments such discussions of the immune system are part of the way they see the social world. Such discussions often reflect a person's wider social beliefs. Debbie establishes here that she has a system of hierarchy where Territorial Army (TA)⁶ and old soldiers are less strong and more susceptible to illness. Debbie later expanded on this and made it very clear that she had disdain for TA soldiers and saw them as inferior to regular soldiers like herself and her husband. In her mind, this is linked to their inferior immune systems. Debbie also places unemployment into her theory of the illness. The words people use to describe the world of the body also orient their understanding of social interaction and their overarching views of the world (Claeson et al 1996).

At times the onset of illness with its link to a degraded immune system is associated with the social experience of leaving the forces. There is a sense that the lifestyle in the army with its focus on physical strength and health kept the inevitable threat of illness at bay.

As George suggests:

Guys that were just leaving the service, because obviously when you are in the service you are really fit and then within a couple of years of them coming out, the symptoms all kicked in because their fitness level dropped.... Obviously, again, it must be, there must be a connection between the immune system and physical fitness. Once your fitness level

⁶ The Territorial Army is a part-time volunteer reserve force. These soldiers often have other careers and are required to commit to 30 days: usually one evening a week, one weekend a month and two weeks a year.

drops off a bit, all this kicks in. I think with Chronic Fatigue, with athletics you see even in civilian life- once they stop their training as such, then some of those have become ill. Some yachtswoman, I can't remember her name now, but within a year of her finishing her around the world trip or something, she got Chronic Fatigue.

I would suggest that this reflects the veteran's experience of their life unravelling when they left the service. Whilst they remained in the forces their life and bodies were organised and contained by the military- their immune system in control- but once they leave the structure of their military life their bodies rebel. This theory of the illness reflects scientific finding suggesting that those who left the forces are more likely to develop the illness.

Martin (1993) suggests that we are seeing the creation of new norms which are based on a healthy immune system, in which some individuals have healthier ones than other individuals (p.71); certain categories of people are found wanting (Martin 1993). Whilst I would not dispute Martin's suggestion that these categories would most likely be women and people of colour, in my largely male and white informant group, I found that it was the old and unfit to be those whose body failed when challenged. Indeed, I suggest that the ideas contained in their narratives reflect their views that as older, unfit men who have left the military and ultimately the work force, they, like their immune system, do not fit the norm.

Veterans expand on the individuality of immune systems by employing genetic theories: one's immune system "natural" strength is determined by genetic factors. When asked why some veterans of the Gulf War were able to remain healthy, one well veteran, Nigel, responded:

Genes affecting the immune system. Why did some people survive the Black Death and some didn't? It's a lottery, isn't it? There was a programme recently about the Black Death and they looked at genetics

in one village. So yeah, I think some people's immune systems are more vulnerable than others.⁷

By placing their understanding of their illness in discussions of genetics and the immune system, they are using the most potent medical language available. By focusing on the genetic element of immune systems, veterans also seem to suggest that there is little one can do to take control of one's health. They believe one must be healthy to stay healthy and suggest that once the immune system is damaged nothing can be done. The following quotation by Frank is a typical response to the question, 'is there anything you can do to boost your immune system?'

Um, keeping healthy? But you need to be healthy to start with to be healthy. When I was a PTI⁸ rarely did I get coughs or colds. I was outside all the time. Anything wooshed through my body that fast came out again. I don't know if you can actually improve your health. I think you could, but you would have to be healthy to start with.

Although some spoke about things they did to boost their immune system, they were the exception. The majority of my informants responded negatively when I asked them if they did anything to keep themselves healthy or to boost their immune system. Many said that the best way to boost one's immune system was to be physically fit, but as they were so ill this was an impossibility for them. The veterans that said that they did do things to boost their immune system focused mainly on diet (vitamins, gluten free diet) and keeping the level of toxins they were exposed to, to a minimum. Interestingly, the one person that focused on boosting his immune system (and had changed his entire lifestyle to do so) was one of only three people who were ill but did not associate their illness with the Gulf. It appears that to have GWS means having an irrevocably damaged immune system.

⁷ Interestingly, a number of people used this television programme in their explanations of immune systems and genetics.

⁸ Physical Training Instructor. Many of the veterans I spoke to said that they were or had hoped to be PTIs. Amongst privates PTIs are respected as they are seen as the fittest in the forces.

On Standby

In addition to constant colds and flus, veterans also suffer from more serious ailments, which are also explained by way of the immune system. All illness is due to immune system failure and, thus, all of their conditions can be linked to GWS by way of its effect on the immune system. Lee is a GWS sufferer who is awaiting a diagnosis of Multiple Sclerosis (MS). I asked him if he thought his MS would be linked to GWS.

Yeah, undoubtedly. Because MS only happens when your auto-immune system has been damaged. This much I've read from all the MS literature. I know for a fact that if you put all those kinds of things into us...your immune system will be damaged. That seems to be an accepted fact from America now. I don't have any family case history of MS. Now, the MS specialist that I've seen has said it's not genetic, but if you've got it, a cousin, an aunt, an uncle, whatever, somebody in your family, even if it's from a couple of generations would have had it. Well, my parents remember their great-grandparents, which is going back to Victorian era, almost. My parents were born before the Second World War in something like '38 and '39... So if they can remember their parents and their grandparents and their big, extended range and they know that there has never, ever been, on both sides of the family, any history of MS. So all of a sudden I'm looking at the facts. Now, I've had all these different things put into me. My immune system has been damaged. Well, how did that happen? I know I've got MS, there is no history of MS, so it's a direct result. It's indistinguishable.... It's a whole hodge podge of recipes all mixed together and cooked.... I think MS is intricately woven into GWS because it's immunological. It's motoneurone type damage, isn't it? I'm 36 as well. This came on coming up for two years ago, now. So, its, they say people start getting MS from 30 plus, but its unusual under 40. You do get the odd young person with it, but it's rare. You know, so that's another thing. GW veteran, yet another first, you know?

For Lee, MS is a threat, but he only succumbed to it as a result of his damaged immune system. It is as though illnesses are incessant, but one is aware of them only when one's immune system lets one down. Veterans would often talk about illnesses "lying dormant", under control until one's immune system is weakened as theirs was. It is as if one is always potentially ill, but illness only takes hold if the immune system is compromised. Contained in Lee's narrative is also his attempt to make sense of that

which seems unexplainable. Getting MS simply does not *make sense* to him, particularly when he looks at his family history. Many of my informants suggest that the particular illness they suffer from was not present in their family, and, thus, another, more mysterious cause must be implicated. Furthermore, Lee stresses that his illness is “rare” and “unusual” in a man of his age, suggesting that there must be a peculiar element at work. Indeed, many veterans stress the unusualness of their illness, illness combinations, and/or age of onset. GWS provides them with a theory of causation that makes sense of the extraordinariness of their illness experience as well as it allows them to draw in disparate experiences and symptoms.

Non-believers point to the fact that symptoms emerged at different times depending on the individual and that there was no pattern in terms of symptoms. It is the individual nature of each person’s immune system that is key to the explanation for this suggested irregularity. Narratives of GWS often stress the individual nature of all bodies and illness. One may have a propensity to cancer whilst another may have a propensity to MS. The immune system mediates this: once the immune system is weakened it leaves the individual vulnerable to their specific threats. So what determines who gets what? Just as there is a genetic element to the immune system, genetics also plays a key role in regards to determining propensity of diseases.

Many veterans suggest that the Gulf War and its exposures was a sort of trigger for dormant illnesses lying in wait within one’s body. Thus, there is anxiety about that which lies without the body; but dangers also lie within. During an observed assessment at the GVMAP, a patient explained that he had come because he had recently been diagnosed with a back condition. He said,

I have theory of my own. Why I have been referred here is my slight concern that what may have triggered it is service in the Gulf. From what I understand of the condition it is triggered by something. A colleague of mine had the same thing and it had been triggered by food poisoning.

The doctor responded to his concerns by saying:

Your longevity will not be decreased because of being in Gulf. There is no increase in mortality due to disease; there is a slight increase because of violent death and suicide.... Tell your wife to be absolutely reassured... If the Gulf had been a trigger, one would expect the illness to have appeared much sooner.... Had you not gone to the Gulf you would still have got it. Food poisoning is not a trigger, but the individual will say that it is that- it is what is linked in his mind. Do you feel reassured?⁹

The veteran responded that he did.

One veteran, Frank, suggests GWS is the result of an entirely new entity. The person and their immune system has never seen it before and thus, is unable to fight it, drawing on ideas of recognition.

I think it was something out there that hasn't actually gave us all these complaints, but hit the triggers. You know, like they say everybody is born with cancer and... something happens and that triggers it all off. One of the doctors that says that to me. I ask how did I get this ulcerative colitis. They say, 'you were probably born with it and something triggered it.' [...] The linear IgA thing, what's triggered that? It's maybe something out there. Because nobody goes there. Nobody actually goes out and tests. The thing with the Ebola virus, they know it's out there. They don't know the source for it. They don't know where it starts from, they know it's a virus. My theory is there's something out there which is bad news, nobody's ever seen before. The way that the Bedouins and Arab people and Islamic law, what they do as soon as somebody dies they're buried. You've got a couple of hours and they are down under. So there is no autopsy. It could be that they are immune. Like ulcerative colitis is unheard of in the Middle East. So that is my theory. So I went to the MAP, they are looking for known diseases. Something they can say, 'oh yes.' But if it's something they've never seen before that is wholly brand new it's going to by-pass them. They will not say, 'oh, what's that', because that's not what they are looking for... I would say it [GWS] was a variety of illnesses that people would have got anyway that have been triggered by something out there.

⁹ This is not a direct quote as it is based on notes I took during the assessment.

Frank sees the illness as something entirely unique, an entity unknown to standard medical science. For him, the illness occurred because they were in unknown and uncharted territory. He believes there are areas in the world that are risky areas. Frank later told me that he knows it was the Gulf that made him ill because it was “the only place where [he’d] been somewhere new.” He said that after the Gulf he had only been in Germany and the UK and the only other “foreign” country he had been to was Canada. Thus, “foreignness” is a hazard in his view. He further suggests that the desert, a place where “nobody goes” is an extremely dangerous place and reported seeing “weird” things in the desert: strange animals and plants, emphasising the abnormality of the region. The body, and its wall of defence, the immune system, is unable to adapt to such new demands. The illness itself evades doctors. It is almost as though the bodies of Gulf War veterans are beyond the realm of medical science, as whatever has happened to them is so entirely unique and new as to baffle modern medicine.

Hooper sees the role of the immune system as central to GWS. He suggests that the failure of the immune system allows illnesses which are normally under control to overcome the body. During a meeting about War Pensions with a Gulf veteran Hooper focused on the possible presence of the Epstein-Barr virus, a ubiquitous herpes virus that most of us have been exposed to once we reach adulthood. The virus has been implicated in Chronic Fatigue Syndrome and a number of other illnesses. He says,

Can get it [Eps-Barr] from the vaccines.... Is he positive for Eps Barr?... One of the things that happened with all the lads, is they came back with Eps-Barr. We all have it, but immune system keeps it under control like Herpes- we all have it but when [the] immune system goes down it breaks out.

It is as though immune systems and bodies are active, constantly keeping almost inevitable illnesses at bay. Illness is a persistent presence both within and without, but it is only when the immune system is weakened that one’s illness takes hold. The immune system no longer provides resistance. Once this occurs there is nothing one can do to prevent further failure. The idea of the immune system giving way under the pressures

of twentieth century life is not a concept unique to GWS and is found throughout contemporary health beliefs.

The immune system as arbitrator of the psychological

As mentioned previously, it is the rejection of any psychological factors that continues to lie at the centre of the debate about GWS. Placing discussions and theories of GWS in the discipline of immunology and genetics provides the basis for such a biological, medical explanation. However, explanations which prioritise the immune system allow for the inclusion of psychological factors without dismissing the physical premise of the condition. During my interviews I would ask if they thought emotions or state of mind could affect one's health. Many denied a connection; others suggested that this could be the case, but felt it was not a direct relationship. The relationship is seen to be mediated through a lack of sleep. The immune system is understood to not work effectively if one was tired, but that emotions did not directly affect this. Frank explains this relationship when he responds to the question 'do you think one's state of mind or one's emotions can affect one's health?'

Yes. If you are emotionally disturbed or depressed or something is really playing on your mind then it will effect your sleep and I think sleep is a great healer of things. Recharge your batteries. I learned that in the army. If I had any spare time I would spend as much time as that asleep. Sleep and eat. Get it while you can because you don't know when you are going to get it again. The longer I go without sleep the worse I really feel. My back hurts more, my stomach creates havoc. You need to rest for your body to recharge. And when your body recharges it helps your immune system to build up as well. Because I am quite drained, anything my kids bring home from school I catch it. Also think that some people can think themselves not well.

Others suggest that emotions and feeling low or depressed can lower one's immune level, making one more susceptible to illness. Some veterans suggest that emotions lower the immune response because the body will be "concentrating" on other things. It is as though the body only has a limited amount of resources and if they are focused on one thing they will neglect another part of the body, such as the immune system. The

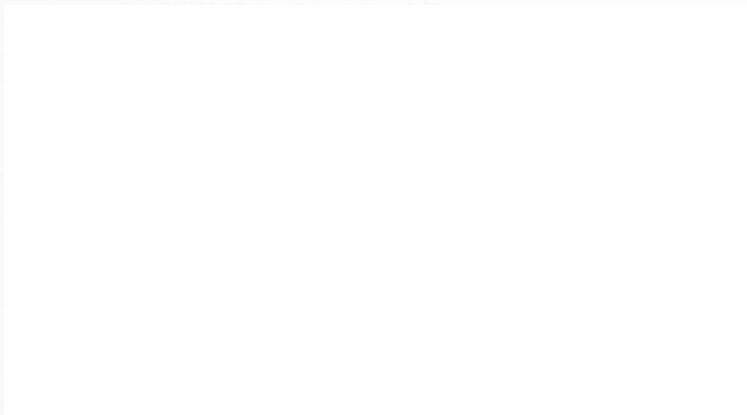
connection between emotions, immune system and health has become widely accepted, particularly through the understanding of stress and has developed its own field: “psychoneuroimmunology”. Some recent GWS studies have suggested that multiple simultaneous vaccinations in stressed personnel may cause future complaints, particularly allergies (Rook 2002; Rook and Stanford 1998). Thus, it is understood that stress affects the immune system which makes it more vulnerable to additional assaults.

Vaccinations

Vaccinations, which are commonly approached with anxiety, are seen as the primary cause of the illness. Vaccinations are known to directly affect the immune system and are seen to inject illness (in a weak form) *into* the body. A theory that emphasises the role of vaccinations enables veterans to account for a number of apparent anomalies, for example, why are there a fair number of GWS sufferers who never went to the Gulf. The primacy of vaccine damage also provides a way to discuss levels of illness in individuals (i.e. those who had *all* exposures may be more ill than those who had less). From an early age we are aware of the immune system through the process of vaccination. We are taught that we can support and teach our immune system. Vaccinations are seen as introducing something to the immune system so that it is able to recognise and respond to it at future encounters. Seen as a kind of education programme for the body, vaccines are given to prepare and strengthen the immune system.

A number of studies, including some from the sceptical Wessely team (Unwin et al 1999), have found a link between GWS and vaccinations. However, it has been suggested that these findings are inconclusive because recall of vaccinations is not always consistent with the patchy records that exist. Most of the discussions of the vaccination programme are clouded by veterans’ memories of people reacting adversely at the time. There is no doubt that a small percentage of soldiers reacted to the immunisation programme. Some had swollen arms, some had flu-like symptoms for a couple of days, some were bedded down and, more seriously, a small number were

casevaced¹⁰ out. There clearly was a level of anxiety directed at the immunisation programme at the time of preparation for the Gulf, and seeing people react negatively to the vaccinations added to the anxiety. Part of the anxiety about the vaccine programme was that it seemed counter-intuitive. In the run-up to the war strength was paramount, as one prepared for the war; yet having vaccines was seen as weakening the body, even if only briefly. As people understand vaccines as initially weakening the immune system, it is not surprising that they are seen as potentially dangerous. Vaccines are seen as introducing a dangerous entity, in weak form, into the body. Peter, for example, sees a vaccine as “the introduction of the poison itself so blood cells can create antibodies to attack it.” Another veteran, James, suggests that vaccines “put disease into the body, a little bit in and fights disease. It’s safe on their own, but if you combine them they might be dangerous.”



A soldier is vaccinated in the Gulf

Veterans describe vaccines as a kind of training exercise for the immune system. Vaccinations introduce a small amount so that one is prepared and properly trained “so that you are prepared for the bigger version.” Veterans emphasise the importance of recognition in regards to immune system response. Vaccines introduce information to the body so that they body is later able to recognise and respond to it. The immune system is thought to have a kind of memory and once it is introduced to a threat it will remember it and be prepared to fight it if it meets it again. Boosters are seen as

¹⁰ Casualty evacuation. The term given to the removal of casualties or injured soldiers from the front line to their first medical station. In my discussions this term was used to describe the procedure when a soldier was flown out of theatre due to an adverse reaction to the inoculations.

reminding the immune system of something it was previously introduced to, as the immune system will sometimes “forget” over time.

Soldiers are constantly given vaccinations and it is seen as an inevitable and regular aspect of service. Indeed, vaccinations are part of a soldier’s regime and they can also be viewed as similar to other kinds of training exercises. Just as the soldier is prepared by small training exercises, so the immune system is trained by vaccinations. The vaccines given to soldiers can be seen as part of the process of creating the “proper” soldier as seen by the forces, the MoD and the government. As Martin (1994) suggests, as vaccines are seen as a kind of education for the body, it is not surprising that some will not want such state-sponsored education. Accepting vaccination means “accepting the state’s power to impose a particular view about the body and its immune system- the view developed by medical science” (Martin 1994: 193). In this case it is the view held by the MoD so it is even more loaded and political.

Some talk about the immune system being killed off or “stuck down” by the vaccines. One veteran described the immune system as held down and prevented from working. Veterans also stress the unnecessary aspect of the vaccination programme. In the end, there was no attack of anthrax or plague, so their immune systems were prepared for something that it never met. Veterans’ statements suggest that vaccines, if unnecessary, block up the immune system. It is as though there is a limit to the resources of the immune system and the vaccines given to them in the Gulf distracted the immune system from doing other jobs.

As Martin (1994) found, some people wish to avoid the system of “state education” for their immune systems in the form of vaccinations. By doing so they are developing a positive view of what their health is. This view “shares with immunology the basic notion of the body as a training ground for the immune system, but it denies the benefits of crash courses” (Martin 1994:202). In such a view, a vaccine, “bludgeoning the delicate adjustment of the finely tuned immune system with antigens at a time when there is no actual threat, could easily be seen as something undermining health” (Martin 1994:202).

Martin further points out that whereas people may see their immune systems as adaptable and flexible, this can be contrasted with the rigid, unchanging state. So that a vaccine policy planned and administered by the state could be expected to share its characteristics- sluggish and inflexible, unable to respond to individuals according to their health needs (Martin 1994). This may be particularly the case of the MoD and the military who are often portrayed as both inflexible and malevolent. Indeed, my informants often suggested that the routine immunisations did not take into account individual differences such as weight.

Overload

The concept of “overload,” with the body giving way to the stresses of twentieth century life is a common theme in illness narratives of CFS and other new illnesses (ie see Steincamp 1989). Many of my informants explain that the immunisations and other preventative measures taken were simply too much for the body to handle. Many stress that there were numerous vaccines given in an extremely short space of time. It is as though the body was unable to respond to the sheer amount of information given to it in one or two “training sessions.” Veterans also express concern that the vaccines and other exposures may have had a “cocktail effect” where they reacted in some way to produce a new, unknown entity. Paul explains:

I think giving a cocktail of so many chemicals are absorbed into your system. The immune system has basically collapsed and can't fight off what's been given. If you are given the flu jab you are given the flu, a small piece of the flu, to fight off the flu. Anthrax and Botulism... it's the same thing. And malaria, NAPS, BATS and whatever was out there like that dump. And don't forget the oil well fires...the MoD saying that didn't happen....To do with your health and fitness....it's permanently damaged the immune system. I can't shake things.... Dr. Jamal has proved that through his work.... I think it's [the immune system] collapsed. I think the immune system...it's like a computer. Too much at one time going on the net, too many people logging on, for example. It collapses. It just can't take what's being given. Too much work load. It breaks down. Failure.

Gulf veterans talk about the many vaccines, saying that the body was not given time to recover before the next was given. There is the notion that the body needs time to react, rebuild and respond before it is are ready to be educated again. They suggest that if the immune system is not given time it will be exhausted and unable to bounce back. As Lee suggests:

Well, I know it's like nowadays with the flu vaccine for the old people you go along, park your zimmer frame up, get jabbed and you come out. When you walked in the surgery you think OK, you get your flu jab and obviously it puts a little bit of it in 'ya so you can get the antibodies. You might get a few signs- runny nose, sore eyes, whatever. However colds tend to affect you most it will maybe come out. Because the obvious symptoms that you'll get that's your body combating it. And that's how it works. I mean, I did my RMA course which is the medical course although I wasn't a medic, so I know a little bit about it. So you get a little bit in you so you can make your own antibodies to it. That's fine. Your body can cope with that. But when you've got *multiple* ones whizzing all around your system- the white blood aren't Linford Christie. There's not enough of them to deal with all what's in ya. You cannot keep putting foreign substances into a sealed system without problems happening. Its like hydraulics, it's like a car. You can't just keep filling up with petrol. It will only take so much.... Any sealed system can only take so much and that's the same with things like that. They overloaded the system that couldn't cope.

There is a point of saturation, where the immune system with all its flexibility is unable to continue reacting. It is almost as though there is a limit of elasticity, where the immune system has been asked too much and is overwhelmed; it loses its ability to adapt. It is as though the bodies of veterans were not able to "take in" the education of each vaccine before being hit with another. Such an exhaustion is permanent, with the immune system unable to ever recover. The discussions of overloading the immune system are often linked to the current debate about the MMR vaccine.

During the time of my fieldwork vaccinations were once again in the news. The MMR vaccine was often the focus of news stories and public concern. Not surprisingly, veterans often voiced their concerns about the MMR for their children and linked the debate about the MMR, a multiple vaccination, with the theory of their illness. The furore

around the MMR vaccine is used to justify their concerns and adds weight to their argument of the role of the vaccines in their illness. As Harry noted:

I think the large amount of vaccines in a short space of time must have had a knock on effect to your immune system. I mean, I think it's associated with the MMR and things like that. Giving a lot of thing in a short space of time which is the British medical advised the MoD not to do that.

Ben also compares his Gulf War experience of multiple vaccinations to the current debate about the MMR vaccine:

I think that the fact that the drugs, the injections we had to take, we took them all in such a close proximity. Thinking about it logically, thinking about the problems that they are having with the MMR vaccination, the cocktail of drugs given to people... again, nobody is admitting that there is a problem, on the government side of it. they have statistics showing that people have been made ill through it. I think look at these drugs that were given: anthrax, bubonic plague, God knows what.

Although most suggest that they were concerned about the MMR, they said they believe vaccinations were important for their children and that they would prefer single vaccinations. I was, however, surprised at the number who suggested that they would not or did not vaccinate their children. Many argue that it should be a parent's choice and discussions were placed in discourse of rights, liberties and control. Veterans suggest that parents would be more aware if their children were "susceptible" or vulnerable as compared to doctors so they had the right to choose. This resonates with Polotrak et al's (2004) investigation into parental attitudes about the MMR which revealed that parents felt they could assess their child's unique vulnerability.

Self versus Non-Self

A central concept in immunology is the ability of the immune system to "differentiate between 'foreign' material (non-self) and the body's own tissue (self). The ability to

make this distinction is crucial” (Isenberg and Morrow 1995:2); for the state of permanent protection is based on the immune system’s ability to make this differentiation. In *Friendly Fire: Explaining Autoimmune Disease*¹¹, Isenberg and Morrow (1995) say that the most important role of the immune system is that of self-defence. In this popular book meant to explain autoimmune diseases to the general public,¹² military metaphors prevail, as does the emphasis on the immune systems ability to recognise self from non-self. The authors argue that there “are ‘enemies’ both without and potentially within the body. Thus the immune system has evolved to ensure that foreign microbes can be recognised and speedily destroyed” (Isenberg and Morrow 1995:v).

The immune system is a cultural construct; the way we conceive of it is influenced by our understandings of the world. Our notions of what a “culture means socially are identical to our notions of what a culture is clinically.... That our immune system takes part of the body as its own enemy is as much a statement of culture (in both a social and biological sense) as it is a description of something that is actually observable” (Napier 1992:151). Veterans concerns about the immune system are an extension of their concerns about body boundaries. Indeed, immunity to a large degree is what “establishes body-image boundary as much as what threatens it, and, since body-image priorities are cultural phenomena, so are the mental constructs that we call ‘immune systems’” (Napier 1992:151).

As we have seen, the immune system is seen as something inside the body which protects one from disease by recognising that which is dangerous and fighting it. However, Gulf veterans see their immune system as failing in this regard. The immune systems of Gulf veterans are simply not working correctly, if at all. The results of this mean that the

¹¹ Interestingly, I had called early papers on the subject of GWS ‘Friendly Fire’, unaware of this book. As one can see the name immediately conjures military images as well as the idea of one turning on one’s own side through misrecognition.

¹² I was informed by an anthropologist studying SLE (Systemic lupus erythematosus), an autoimmune disorder, that most of her informants had read this book and that it was described as their “bible”.

immune is no longer able to fight, or even recognise that which it is supposed to fight. As Stan, non-deployed Gulf veteran explains,

The immune system is basically the body producing chemicals to fight against attack from outside forces. Body is just trying to defend itself to survive. System is not what it should be so it'll get you.

Veterans mainly discuss their immune system as giving up; but they simultaneously talk about their immune system as being active in another way: it fights against itself. This kind of activity arises out of a lack of control. The immune system is not behaving as it should and is not doing its duty. Aaron, a non-deployed veteran,¹³ discusses his understanding of his illness:

The immune system is to fight illness, disease, bacteria. For it to suddenly turn on itself which is what mine has done, I mean, how you get from one day you are working fine and the next day your face is pure white, you've got a blinding headache, you can't see properly, your bowels have gone. And they find out there is not enough oxygen in the blood and then they find out why. It's because the immune system is destroying the oxygen in the blood. I mean, something has gone wrong for it to make that sudden change from attacking illness or bacteria to attacking itself.

Aaron sees his immune system as actively fighting against itself; it suddenly changes its duty. Before, when he was healthy, the immune system fought against illness, but now it is unable to recognize the difference between self and other and, instead, attacks itself. Claeson et al. (1996) found that the "concept of the boundary between self and non-self is a touchstone for broader social meanings. Since [they found] such concepts so commonly in interviews, it raises the question of whether the central role of boundaries in current research immunology is not culturally based in its inception." (Claeson et al 1996: 114).

¹³ Aaron left the army in the 1980s but has joined the association because he feels he has the same illness as other Gulf veterans. He believes he was injected with the same things as Gulf veterans were. He sees GWS as part of a much larger illness of many ex-soldiers. Although he was accepted into the group, they are now keen to distance themselves from him. It is likely that this is because accepting him as having GWS weakens their argument of the uniqueness of the Gulf War and GWS.

Veterans and their advocates stress the fact they suffer “auto-immune” diseases, where the body does not recognise its “self” and as a result it interprets as foreign and attacks itself. Auto-immune diseases occur when the body inadvertently attacks its own healthy tissues and are described in immunology as “self-destructive illnesses.” During a talk he gave to the veterans’ association, Hooper spoke about a scientific study¹⁴ which suggested that 12 per cent of US veterans who were given vaccinations, but were not deployed, had GWS. He further suggests that,

Anybody who knows anything about vaccines knows about... the auto-immune diseases that you get. How many of you have got arthritis? and how many have got auto-immune diseases affecting the skin? Any of you got lupus? You know, these are the sorts of things you would expect. Diabetes, another one [that] can be auto-immune generated. There’s a whole range of auto-immune diseases which are well known. Multiple sclerosis- damage to the central nervous system, you know. They are all there. And this is what you would expect from vaccine damage.

Hooper suggests that the vaccines given to Gulf veterans triggered an immune response which resulted in auto-immune diseases; that the bodies of Gulf veterans are turning on themselves.

In her work on the cultural life of immune systems, Harraway suggests, “disease is a subspecies of information malfunction or communication pathology; disease is a misrecognition or transgression of the boundaries of a strategic assemblage called the self” (1991:212). Veterans submit that whatever happened to them in the Gulf resulted in their bodies being unable to make this differentiation. Martin (1994) found that the “portrait of the body conveyed most often and most vividly in the mass media shows it as a defended nation-state, organized around a hierarchy of gender, race, and class. In this picture, the boundary between the body (“self”) and the external world (“nonself”) is rigid and absolute.... The notion that the immune system maintains a clear boundary between self and nonself is often accompanied by a conception of the nonself world as

¹⁴ Unpublished study by Lea Steele

foreign and hostile” (p. 51). Thus, we can see how military metaphors follow easily from such distinctions between self and foreign and hostile entities.

MILITARY METAPHORS

Although my informants did sometimes use other metaphors (house, computer) for the immune system, the majority of them used military metaphors. In many of the above quotations one can see such metaphors being used to organise and make sense of illness. This is not unique to military people however, as immunology is dominated by military metaphors. The potential for embodying the images that the immune sciences presents us “as they trickle down through *National Geographic* and *Time* (Haraway 1993; Martin 1994)- including commonly militaristic ones- is real” (Napier 1996:335f). As we have seen above, veterans talk about their immune system not doing its duty, not behaving, fighting, as it should. When they describe their immune systems they imagine them as comprised of sentient beings, like soldiers, as Steve describes,

I've seen it in books: billions of little soldiers under a microscope fighting another lot of soldiers and... the vaccine is the little soldiers.

Ed uses a number of metaphors to explain how he imagines what happened to his body when he was injected with the vaccines for the Gulf War.

It just feels like it had the adverse effect. [...] Like a wall coming down, I think. Like the enemy hitting you, attacking, you know, I've got my defences. Like a game of chess, I suppose. The other side of the board attacking me and with him so easily knocking my defences down without me being able to fight back, totally defenceless.... Because there were so many at once and because they tried to do... not too many chefs spoil the broth, type of thing. But too many trying to do different things without thinking about it. And it went totally adverse, it went totally the other way. It's like an army colonel planning a battle and not planning it properly and everyone going in without a clue of what to do. And it's all gone wrong, basically. It's just breaking down. It's just giving up so easily. The body is not being able to fight it. Why is the body not fighting it? Where are my defences gone? Surely I should have something in reserve to help.

Earlier in his discussion, Ed explained to me that whatever had been given to him had “killed off” or “stuck down” his immune system and prevented it from “doing its duty”. He also described a cold as a “big battle” inside himself. In his explanation above, Ed discusses confusion: he imagines that his body was in a state of chaos, with “everyone without a clue of what to do”. He imagines that there was too much happening and the body could not respond appropriately. Contained in his explanation is the sense that there is a lack of communication resulting in failure. This theme of miscommunication emerges again and again in veteran’s narratives about the war itself and their illness. As Ben says:

I’ve been given all this stuff in my bloodstream and my body is designed to attack it and that’s what happens. That’s the way I look at it in my head. These white cells, or whatever, are attacking all the horribly nasty stuff. In fact, did you ever see that film with Raquel Welch? That’s how I imagine it.... Because I had so much, I imagine I didn’t have enough antibodies to attack this stuff. And so, it was like, a thousand men defending against 10 000 men. No matter how much I had in my body, I don’t think I’d have had enough to have coped with the amount that was attacking it. So that’s what’s going to make you feel poorly. Your body can only cope with so much.... [How do you understand vaccines as working?] You get given a certain amount of the disease or whatever it is that they are trying to protect you against. So your body’s immune system can attack that. Fight against it. Figure out what it is it’s fighting against. And create its own immunity against it happening again. So, ‘oh look, I’ve got one of my, ah, antibodies here in my body. It’s attacking this horrible thing. Ah, I know what it is now and there are plenty of us here now. There are 10 000 of us attacking a thousand of them. All right, we’ve beaten you. What is it? Ah, we see what it is. OK then, we’ll take a little bit of that and stick it in our memories, tell our whole body about it so next time it sees it, it won’t let it hurt me’

The above description is Ben’s explanation of what he imagines is happening in one’s body when one gets a vaccine. I then asked him what he imagined happened in his body when he was vaccinated in preparation for the Gulf War:

Well, I never thought about it in this way before, it’s quite good. I’ve got 1000 of me over here, 10 000 over there now, it’s attacking all these

things. It says, 'OK that's what that is.' All right, you might have one little cell say, 'oh, I've beaten him now,' you know, 'I've beaten him up, I've done all Pleasant Stead¹⁵ now. I want to go on to Raquel Welch. No, but I'll tell the rest of my body now. Hang on a minute, my mate over here is telling me over there that he has just eaten him over there and he want to tell everybody that this is the one to fight against'. And just imagine it, it's like Chinese whispers, I suppose. You've got ten people in a room, say ten different vaccines. They've all got, they've all done their jobs but they are trying to tell each other how to fight it. And then they say, 'well, hang on a minute, we haven't got the resources to tell everybody in our body to tell them to fight all of these at once. Should we tell them to fight one of them, or fight a little bit at a time. Or what should we do? So all of a sudden there is a hell of a lot of confusion. They, ah, might even get mixed up, saying, 'well, hang on a minute, did he tell me this is what we're supposed to do to fight this and to fight that? OK, they aren't reasoning, thinking beings, but they could get confused in their signals. Because there are so many at the same time. Or very similar vaccines or things. Or too many and they haven't got the resources to fight it. I mean, you go to war, you fighting an army of 50 000 men, you've got 10 where are you going to get the rest from? Well, you haven't got them. What are you going to do? You can run away or you can cope as best as you can. You can't do it.

Ben expands on the military metaphor and the theme of miscommunication. Martin (1994) showed that in the media military metaphors abound, but there are also descriptions of the immune system as a "regulatory- communications network" (Schindler 1988:1 in Martin 1994). The body is seen as "an engineered communications system, ordered by a fluid and dispersed command-control-intelligence network" (Harraway 1989:14). My informants tended to collapse these two metaphors. The system, a military system, is held together by systems of communication and feedback. I would suggest that as military personnel, their jobs focus on organisation as well as the efficient flow of orders and information down the lines of command. It is not surprising, then that when discussing their unresponsive and broken bodies they make use of this kind of metaphor.

In her work, Martin (1994) found that people would come up with military images regardless of their gender, age, race and other social features. She felt that this was partly

¹⁵ Character from the movie *The Fantastic Voyage*. Ben was not the only veteran to talk about this movie in his discussions of the immune system.

because of the omnipresent imagery in the media, but the kind of society and world in which different people group may also be important. Martin wrote: “*all* the examples that struck [her] as the most elaborated, vivid departures from military imagery came from people in their late teens and early twenties, people coming of age at a time when cold war assumptions are being drastically shaken and a new sensibility about how the body relates to the world may be arising” (Martin 1994: 71). Thus, it is not surprising that military metaphors abounded amongst my informant population whose view of the world had been dominated by their military careers, war and the preparation for war. Their use of military metaphors was quite specific, focusing on themes of quantity and strength. Interestingly, they do not appear to use themes which are widely used when discussing the Gulf War such as intelligence and technology. Their narratives are likely to reflect their own experiences of war and the next section illustrates this in depth.

Friendly Fire

The military metaphor is expanded to discussions of friendly fire where the enemy is one’s “self”. This ties in the discussion above, which situates immunology discourse in the central distinction between self and other. Indeed, I would suggest that discussions of self and non-self in the GWS context could be collapsed into discussions of friendly fire. The Gulf War was a war with few coalition casualties. Media reports enthusiastically reported the “smart” and “clean” war which resulted in very few deaths (not reporting the large casualties on the Iraqi side), yet more soldiers died in friendly fire incidents than were killed by enemy fire. The “blue on blue” incidents were powerful stories. During my interviews I was surprised by how many people discussed the friendly fire incidents and their connections to them. Although there were limited numbers of these incidents, it appears that an inflated number of people claimed to have been involved to some degree.

The concept of one’s side fighting and killing its own people through breakdown in communication and confusion was often part of the veterans’ discussions. When veterans speak about their illness they not only use the friendly fire metaphor for the causation of their suffering, but they also talk about their illness as their body turning on itself, a kind

of blue on blue. They talk about the drugs given to them by their medical officers, their commanders and their government as in fact killing them. That which is slowly killing them is a result of their own side's mistake or, worse still, purposeful sabotage. In discussing the effects of their Gulf War experience on their children, through the passed down effects of the exposures, veterans often suggested that this was a kind of friendly fire.

As mentioned above, the central concept in immunology is the ability of the immune system to differentiate between 'foreign' material (non-self) and the body's own tissue (self). Health is entirely dependent upon the ability to make this distinction. With their discussions of auto-immune disorders veterans suggested that their bodies are turning on themselves and this could be likened to friendly fire. The body does not recognise itself as not the enemy. In his discussion of the vaccinations given to him in preparation for the Gulf Ed says,

I just think they've done the opposite of what they were supposed to do, you know. I mean, they were fighting against each other. Whatever they gave us had a totally adverse effect because they mixed them together.

Science literacy is much more than merely knowing some basic "facts" and simple concepts (Hazen and Trefil 1991a:xix). Individuals use "facts" in very different ways and often make them work with their particular local circumstances as well as express their most overarching views of the world (Claeson et al 1996). Claeson et al (1996) suggest that using metaphor to "conceptualise the body may affect our conceptualisation of social situations. Some theorists emphasise the interactive nature of the elements paired in a metaphor, so that when Dante says "Hell is a lake of ice," the hearer extends the association of "hell" to a "lake of ice," thus transforming both elements of the metaphor (Hesse 1961; Black 1962:37). Through the use of a body/ war metaphor we may not only be thinking of the body as naturally war-like, but we may also be thinking of the state of war as natural" (Claeson et al 1996:144). When veterans discuss their illness as like friendly fire, they are explicitly commenting upon their view of the world. Veterans see

the world as full of threats: pollutants, genetic illnesses (such as cancer), toxins; but the greatest threat of all is one's own government. Substances and institutions which we once thought to be harmless are now the purveyors of danger.

Although initial theories of GWS pointed to possible unknown chemical or biological warfare by Saddam Hussein, these theories were soon abandoned.¹⁶ Instead, theories now point to known contamination by the UK government. Veterans see the MoD and the government (including most doctors and scientists) as their main enemy. That which was friend and protector has turned on them and, indeed, is that which has made them ill. As Malcolm Hooper said to me during our first meeting,

As you can see all these things have nothing to do with Saddam Hussein except possibly biological. But we sold the cultures to him to develop. Our own enemy. We are the enemy.

This comment resonates strikingly with Martin's report (1994) that in one television show, autoimmunity was described as "we have met the enemy and the enemy is us" (reported to Martin by Ariane van der Straten; p. 62).

CONCLUSIONS

Reporting that they *feel* and *know* their immune system to be damaged can be linked to their embodied experience. Recent studies have revealed that even within a medical establishment individuals "generally attribute feelings of vigour and vitality to a well-functioning immune system, and feelings of fatigue to poor immune function" (Booth and Davison 2003:37). Petrie et al (1999) found "perceptions of immune functioning to be unrelated to the concentration of serum antibodies or blood lymphocytes. Immune perceptions were strongly related to mood and in particular, feelings of fatigue and vigour. The experience of recent physical symptoms, while not as strong as mood variables, was also important in perceptions of immune functioning" (p.391). The idea of

¹⁶ But not totally abandoned. Hayley explicitly states that GWS is due to brain damage which was caused by sarin on Day 4 of the war (Wessely 2003).

the immune system has become so embedded in popular culture that popular notions of one's own vitality and health are often expressed in terms of perceived immune function.

It is not surprising that Gulf veterans, whose very suffering is in dispute, would look towards the immune system to organise and legitimate their illness; for the immune system has emerged "as a field in terms of which all manner of questions and definitions about health are given meaning and measured" (Martin 1994:xvii). An aspect of this shift towards immunology was that bodies and immune systems were seen as agile, bodies were no longer seen as docile. Tauber (1994) shows that immunology "was born in the controversies of that fresh announcement that no species, including our own, was a static entity.... it is always adapting, always changing. Thus, the very core issue of *identity* is for the first time raised as a problem. With the Darwinian revolution, a physiological ability to differentiate self from nonself must be postulated" (Tauber 1994:2). Central to notions of the immune system is the ability to adapt and evolve as one faces new challenges. Lay theories of illnesses such as ME/CFS, food allergy, MCS and others see them arising when the immune system gives way under the pressures of twentieth century life (Shorter 1992). The threats to immunity come from toxins, pesticides, contraceptives, pollution, viruses, food additives, mercury and so on. Even stress, a psychological concept, is accepted usually via its effect on immunity. The person, and their immune systems are simply overloaded and unable to keep adapting.

The veterans' discussions described above can be seen as examples of how people are engaged in producing what Geertz has called "local knowledge"; that is, "the artisan task of seeing broad principles in parochial facts" (1983: 168) and "stories about events cast in imagery about principles" (Geertz 1983:215 in Claeson et al 1996). When people discuss the immune system they are revealing their conceptions of both bodies and other social facts. When veterans talk about their immune system as being insulted and degraded they are also talking about their position in the world. They are talking about their experience of being in and of leaving the military. Bodies which were once toned and prepared have become chaotic and weak. Their immune systems have reached their limits and no longer adapt. When veterans talk about their illness as their body turning on itself, they are

reflecting on their belief that their government has let them down and turned on them and also drawing on their experience of war itself.

Situating discussions of their illnesses in the discourse of immunology allows veterans an overall, inclusive theoretical model of their illness whilst simultaneously encompassing the overwhelmingly individual nature of the illness. Thus, any illness, symptom or illness experience can be included in GWS narratives by way of situating it in the immune system. This understanding of the immune system is very important because it explains what is otherwise unexplainable. Through the immune system veterans are able to develop an inclusive and watertight system. They are able to relate OPs to vaccines to NAPS and to relate different scientific themes and diverse outcomes. It also creates a theory which is able to explain why a proportion of sufferers never went to war. The immune system is a central melting pot and allows them to make coherent the incoherent. Through discussing the immune system veterans are also revealing their view of the world, their feelings of vulnerability and their experience of unravelling at leaving the forces.

Part II

Gulf War Syndrome as unique illness

The previous chapters have focused on GWS explanatory models and the way in which veterans understand their illness. In order for an illness to gain legitimacy it must resonate with a larger cultural framework which makes it intelligible. GWS narratives reflect wider cultural anxieties and health beliefs: they develop from commonly held concerns about risks, toxins, bodily integrity and vulnerability. Central to this is the immune system, which has become embedded in our understanding of health and illness. Veterans are concerned about risks and permeable boundaries; through their narratives they express the sense that their relationship with the world is disturbed. Veterans' narratives and the symptoms upon which they focus allow them to comment upon their experiences.

GWS can be seen as reflecting and building upon widely held notions about illness and health; however, it also has unique characteristics. It responds to specific experiences in the lives of its sufferers; in the way that the friendly fire metaphor was developed, for example. The next three chapters will further investigate the distinctive factors of the illness; focusing on the support groups and the way these groups help to construct a specific GWS narrative and identity. This chapter focuses on the way in which GWS narratives help individuals to construct a meta-narrative which is both personally and collectively meaningful. Somatic symptoms have been described as 'communicative acts' (Kirmayer 1984), whereby an individual, having troubles in various areas of life, conveys these in bodily terms. Physical symptoms can be seen as part of a process of making meaning out of experience. I further develop this reading of GWS by looking at specific symptoms: those to do with sex, reproduction and sexuality. I then move on to interpret and contextualize these themes by looking at the role of masculinity in the military and the way this regimented notion of masculinity was under threat at the time GWS emerged.

CHAPTER 6: VETERANS' ASSOCIATIONS

At first Ed, the veteran introduced in Chapter Four, felt unsure of whether or not he belonged at the NGVFA AGM because he had not been deployed to the war. His uncertainty soon gave way to conviction, a process I was able to observe. Ed describes the way he came to link his problems with GWS:

I say it is Gulf War Syndrome [When did you start to think it was GWS?] When I spoke to Dame Laura¹, who was a nurse who was administering injections, it was ahh, lets think, about '96. It was then that I realised. I read something in the paper about GWS and I contacted her. And she said 'you have GWS'. She read the symptoms out over the phone and I was convinced. I had all the symptoms, every symptom that she read out to me. I was convinced that I had GWS. [How has it been here, at the AGM?] It's the warmth, the friendliness of everyone. How close, 'cause everyone is like a big family. Because we can all associate. When I'm stuck in Leeds and I don't hear anything from anybody and I feel out in the cold, on my own: you know, trying to deal with it on my own because the doctors don't know anything about it. Everyone can associate with each other with each other's symptoms. It's like a warm feeling you get. They know what you are going through.... The War Pensions Agency said that my symptoms weren't caused by my service in the Gulf. Ah, I mean, my argument was, until up till the last couple of days, I'd say, well, I wasn't in the Gulf. But talking to people here, you were in the theatre of the Gulf. You were in range of Scud missiles from Iraq, being in Cyprus I was in range of them. So you were effectively in the Gulf.

In the above quotation it is clear that the media and the support groups were central to the diagnosis of GWS along with one outspoken advocate with links to an association. Ed described a period of uncertainty followed by conviction after contact with other sufferers. The association then welcomed him in and he no longer feels isolated and misunderstood.

Much of the discussion contained in this chapter arises out of my experiences at the AGM (Appendix 5:3). This week not only provided me with access to a large number of

¹ Laura appeared often in the early media reports about GWS and had a major role in the early veterans' associations.

informants, but also allowed me to observe the way in which the veterans' association was organised and how they presented their beliefs. One of the most important aspects of the week was the way in which I was able to interview individuals a number of times and watch how their perspectives changed over the course of the AGM. Gulf veterans' associations, I discovered, play a key role in individuals' illness narratives. Often it was through contact with veterans' associations that my informants became convinced of the link between their suffering and exposures in the Gulf. Support groups are central to the construction of the disorder, and to the development of a community. The community makes veterans feel better because it tells them what is wrong; it provides a framework to make sense of their experience. The collective culture defines the syndrome along certain lines and the participants collude in this as their narratives are structured to fit the template. The support groups also reflect the creation of a community; the creation of the syndrome arises out of this community of sufferers.

THE CONSTRUCTION OF GWS NARRATIVES

Narrative provides a means for conveying the biographical disruption caused by illness, especially chronic illness (eg Bury 1982; Kleinman 1988; Williams 1984; Becker 1997). Bury (1982) described chronic illness as introducing "biographical disruption," a time in which the normal social structures and are disrupted. A critical dilemma that people encounter in the face of such disturbance is how to reconstruct a sense of continuity of self and role responsibilities (Bury 1982; Cassel 1982). The GWS narrative provides veterans with a way to reconstruct their identity and offers a meaningful explanation for their experience of disruption. Work on illness narratives illustrates that they should not be seen simply as an individual story, told by an individual (Good 1994), but rather as the on-going process by which a person negotiates the meaning of his or her social world (Skultans 1998; Hyden 1997). Narratives can be seen as strategies for organizing personal experiences in culturally intelligible scripts.

In the face of ongoing uncertainty and lack of satisfactory answers to explain their suffering, veterans look to create or embrace a narrative which makes sense of their experiences. Similarly, veterans' groups look for others to subscribe to their collective

narrative to strengthen and support their rendering. It is through dialogue with other sufferers and hearing their interpretation that veterans are able to construct an individual narrative. By assimilating the messages in the stories of other members, a culturally specific narrative form or genre is learned: thus, the individual narrative is entirely entwined with that of the collective

When veterans describe the onset of their illness they describe an initial period of uncertainty, of not knowing. They say they had a sense that things weren't right, but it only becomes a narrative, or at least a story about GWS once they come in contact with other sufferers. Veterans talk about their onset of illness as a list of symptoms, a chronology of failures, which lack cohesion and comprehension. Bill, a non-deployed veteran, explains that he knew that there was something wrong with him, but could not work out what the cause was:

I thought it was me and then I saw a documentary on TV about Gulf War vets. It was in 1994 and it was all about British vets. A list of symptoms came up on the screen and the majority I was able to tick off. I was thinking, 'but I didn't go to Gulf, but there is a coincidence with these symptoms'.

Bill then contacted the veterans' association and told them that he was ill, but explained that he had not gone to the Gulf. They informed him that he was not the only one with these symptoms. He said that he has heard that people think that in the associations they just "wind each other up", but he believes that meetings and the AGM are a great help as he is able to talk to people who understand.

Below, Steve describes the way in which he became convinced his illness was connected with the vaccines he was given in preparation for the Gulf. Similar to Bill and the majority of other veterans, he describes a period of unspecific malaise which was characterized by uncertainty as to its cause.

I am ill with GWS definitely. [When did you start to get ill?] Well, it would have been, I reckon a good year after [I left the army]. Well, the

first things I started noticing I started on dry rashes on my legs and umm, I did hear bits and bobs off the news about possible GWS and it developed on from there. I started having the stomach troubles about two year after it. Umm well, I didn't know whether it was that or whether it was something else. I didn't know a lot about it. Well, from then on my stomach has been right the way through, like. And then as time has progressed I've had nightmares, a lot of sweating in bed. This last year I've actually looked back and added all the little bits of stuff together, but on their own, they may seem well you don't know what to think. Was it this? Or was it this general growing up in life. Starting to age, you know...but I seem to ...weak wrists and for the last three years I've started to have chest pain...Well, umm every time I come visiting my GP its like you are touching on, treading on thin ice. Like you know...they don't want to commit theirselves I've never had no joy out of it out of any of them. So I started moving around to other doctors...I saw this other one who got me to see a Gulf consultant who ...everything [tests] that comes back is OK, like so everytime you are back to square one. What is it then? What's all this that I could have caught there and this week I come here and I actually can see it with my own eyes... the illness, the people. I still keep in contact with friends who are still in and friends who are out. But none of them seem to have any of these problems, so I'm off stuck on my own. And I'm thinking is it me? Or does this GWS really exist? I am ill with GWS definitely.

Veterans say they wondered what was happening to them, but either dismissed their suffering and/or understood it as bad luck or aging. These explanations were not satisfactory; they report that they had an ongoing belief that something more serious had happened to them. There is an impetus for further explanation that provides deeper meaning for their experience. They need a template, an explanation which could make sense of their disruption and make the incoherent coherent. Becker (1997) argued that narrative thus holds a potent constructive capacity as people reconfigure their disrupted identity. Narrative, then, is a way to reconfigure one's social identity. I do not, however, want to over-emphasize the search for meaning at this stage. For, it would seem that the search for meaning was often retrospective.

They continue to search for an explanation by seeking doctors' interpretations and various tests. They are unsatisfied with the results (normal) and the doctors' explanations ('you are fine', 'it's psychological', 'what you have is rare'). The first group of doctors'

explanations ('you are fine', 'there is no illness') does not resonate with the veteran's perception of their ill health. Their somatic distress is persistent. Psychological explanations do not resonate for similar reasons. As Kirmayer (1994; 1999) has suggested, the clinical situation becomes based on rhetoric as both parties try to persuade the other. In the case of Gulf War veterans, the majority of clinical situations consist of the doctor or psychiatrist trying to persuade the veteran that their illness should be seen in terms of psychological explanations. Or, at times, the clinician tries to make the veterans see that their experiences are normal and not related to the Gulf. Forced to choose, "the patient opts for the independence and hence authenticity and seriousness of [his] physical problems" (Kirmayer 2000:165). At the level "of bodily experience, the failure of the psychological narrative reflects its limitations before the power and insistence of somatic distress" (p.168). Other explanations, such as 'you have an illness that is rare,' or 'we don't often see this in men of your age,' increase the veteran's mounting interpretation that something unique has happened to them, and that points to their participation in the Gulf War.

Thus, the uncertainty continues, as does the lack of coherent narrative. Then the veteran sees a story in the paper, in the news, or on the Internet about other Gulf veterans suffering from illnesses. They recognize themselves in the narratives and their experiences suddenly make sense. This moment can be seen as what Dilthey referred to as an "impression point" (Stromberg 1985), a newly inspired reading of one's life reflecting a fundamental shift in personal meaning. I would suggest that an explanation which pointed to their time in the Gulf resonates with their feeling that it was that which makes them part of a unique group: a group which was valued for its masculinity and strength; a group with whom they would wish to be associated. The Gulf was a unique experience which makes them stand apart from the rest of ill society.

Veterans often describe the relief they felt once they realised that others were suffering as they were. Whereas before contact they "thought they were going mad," they now understood that their illness was real and shared. They commonly reported a sense of relief once they realised they were not alone. A search for an explanation continues as

they contact the veterans' groups to follow-up and clarify what they have heard. Through conversations with other veterans and their organisation, the story is constructed: it becomes a narrative about GWS. The "inexperienced" veteran is taught to see their problems in terms of medical explanations: the toxins to which they were exposed. Medicalization may constitute a strategy to deal with suffering through the construction of a narrative to make sense out of chaotic life events which threaten one's sense of self-integrity (Cassel 1982). Medicalization is often thought of in terms of the appropriation of social problems by the "medical profession" which establishes standards of normality as well as acceptable parameters of deviance (Conrad and Schneider 1980; 1992; Ingleby 1982; 1988; Nelkin and Tancredi 1989). Social scientists have pointed out that medicalisation is more complex than just doctors appropriating social problems to expand their domain of expertise and control. In the case of GWS it is the veterans and their advocates who push for the medicalization of their suffering, often against the opinion of the medical profession. As Nichter (1998) suggests, the medicalization of disorder "may be self-initiated, engaged prior to medical confirmation or contrary to the opinion of doctors. Health-care seeking may be undertaken to legitimize and validate a sick role already assumed and enacted" (p.327). Often the conversation will focus on the "experienced" veteran listing symptoms and asking the other if he has experienced these things.

They swap symptoms and discuss exposures. Young (1995) found that in Vietnam veterans, their post-war histories were generally saturated with misfortune and failure. A "properly decoded traumatic memory gives the chaotic surface a coherent subtext" (Young 1995:185). For Gulf War veterans I found a similar situation of post-war negative experience, but for them it was not a traumatic memory, but the sequence of exposures and the list of symptoms/misfortunes themselves which are key to the narrative. For many, they don't even have symptoms, or recognize them as such until after that moment of contact- when they recognize themselves in other stories. Through reconstruction, narrative exerts effects that move backward in time to reshape memories to fit conventions (Bartlett 1932; Neisser 1994; Young 1995). Thus, the veteran looks back and discovers symptoms which point to the illness (marriage breakdown, rash).

Through dialogue these single events or experiences are linked together, held up and re-interpreted and as pathological. They become symptoms of GWS. Their past experiences are then re-interpreted to structure a narrative of GWS.

The veterans' group will give the veterans advice and even tell them a doctor who "looks after Gulf veterans", one who they have found to be willing to co-operate with their understanding of their condition. Thus, they help them to find doctors who will help to construct and justify their interpretation and give support to the collective narrative. As Jack explained:

I mean I changed my GP for that very reason. I changed GP and I'm now with John's because my GP said I was a hypochondriac because I would go in with these various problems. And my GP now really was interested in learning about where I was, what I had done, and that I had been to the Gulf etc. I changed GPs and now I have found I get a much more favourable response from him and he does understand that I am coming down or I do come down with these various illnesses and bugs etc.

The welcome pack given to each participant at the beginning of the AGM contained photocopied letters and documents that "show that some doctors are willing to put down GWS as a diagnosis". One of these documents was a letter addressed "to whom it may concern" and stated that a named doctor, a neurologist, had diagnosed John with GWS and PTSD. The reason for including this letter in the pack was so that veterans could show it to their doctors as "proof" of the illness. Another document was a scratchy photocopy of one veteran's medical notes which listed under diagnosis: desert storm syndrome.

A similar situation arose out of the CFS movement. British self-help organizations maintain lists of doctors who are sympathetic with their cause and their American counterparts have 'Physician Rolls of Honour' (Wessely et al 1999b). Shorter (1992) notes that the CF subculture awash with folklore about finding the right doctor. Thus, a new relationship arises between patients and doctors where the patient is an active consumer searching, with help from support groups, for the physician who will sustain

their reading of their body. As Wessely et al (1999b) suggests, patients have always presented doctors with chronic fatigue and other complaints, but what is new is that patients present not with symptoms, but with a diagnosis already made. The balance of power between professional and lay models of illness has changed, in the past sufferers were open to medical counter-suggestion, this is no longer the case (Arksey 1994). Furthermore, clinicians are judged not on their merit, but on their friendliness to the diagnosis (Shorter 1992).

The telling of personal experience with a chronic condition may be “deeply embedded within the various institutional structures that influence its production as a story” (Saris 1995:39-40). Cain’s (1991) research explored the way in which individuals come to reframe their lives told according to the principles of Alcoholic Anonymous. She showed that through participation in AA meetings and assimilating the messages in the stories of other members, a culturally specific narrative form or genre is learned. This provides a framework for the reflexive re-interpretation of one’s past and helps to construct a narrative. The “AA member learns the AA story model, and learns to place the events and experiences of his own life into the model, he learns to tell and to understand his own life as an AA life and himself as an AA alcoholic” (Cain 1991: 215). I have found a similar phenomenon with Gulf veterans. In the search for explanation the individual narrative develops a congruity with the collective template. Among “participants in a movement, meaning construction often occurs through consciousness raising, which serves to shape the meanings held by members and to bring these individuals to interpret reality in line with shared, collective understandings” (Shriver et al. 2002a:125). Through this sort of activity, the interpretations of the group become those of the individual. Furthermore, movement participants “learn to construct meaning in particular ways through the frames supported by the movement” (Shriver et al 2002a:125).

Ascribing to a GWS narrative provides the individual an all-encompassing explanation for all their suffering. GWS narratives focus on the way in which the war provides a filter through which all of their negative post-war experiences can be understood and given meaning. The illness narrative, once it becomes about GWS through contact with

others, provides a coherence to the experience. Dumit (submitted) argues that what these social movements aim to do “is to provide such “construction kits of biographical combinations” (Beck 1992:135 in Dumit submitted). The collective narrative orders and provides meaning for the individual’s illness experience of chaos and unravelling. Simultaneously, the individual’s narrative contributes support for the collective narrative. Through such acceptance of the movements explanatory systems others can be persuaded to adopt the frame and, at times, can enter into public consciousness. Thus, culture can tie people to a movement. As GWS sufferers “interact and adopt new cultural codes, they are further integrated into a movement, and the solidarity of the group is strengthened” (Shriver et al 2002a:125).

For the account to make sense and be persuasive it must fit in with the larger narrative. Those that do not are rejected, but this happens very rarely.² I would suggest that the fact that GWS is a hotly disputed condition adds a different dimension to its narrative. As there is no test, no accepted diagnosis, and no real consistency of symptoms or illness experience, it is the narrative itself that provides structure and weight to GWS. I cannot describe the number of times that I have heard from veterans themselves and others that “it must be true because how could so many people be telling the same story?” and “They can’t all be making it up.” In many ways it is the story itself which is the core of the illness which lacks a coherence of symptoms, diagnosis, test, etc. In GWS the story is the illness. As Mattingly suggested, a narrative is marked by a “style of presentation, by its highly connotative language” (1998:8). Thus, narrative has as its primary function a rhetorical power to persuade. So, it is of great importance that the narratives of GWS have a template, a genre; for it is the similarity of the individual stories that is persuasive.

It has been suggested that GWS is spread by word of mouth (Showalter 1997a; Chalder et al 2001). Chalder et al suggest that those with the illness were much more likely to be in contact with others who were ill with GWS (2001). Veterans are aware of this argument and deny such a correlation vigorously. Ann expressed anger at this work:

² The only time I witnessed this was in the case of Aaron (Chapter 4) who had left the army in the 1980s but has joined the association because he feels he has the same illness as other Gulf veterans. Although initially accepted into the group, they are now keen to distance themselves from him.

My diagnosis is CFS and IBS. I recognize and firmly believe in my heart that I am like this because of counter measures given to me because of the Gulf. When I talk to people they all have the same symptomatology. I find it insulting when they say that I have this because I know someone who has it. Traumatized because of the way we've been treated. It's a re-trauma. It's powerlessness.

Most veterans refer to the media as the vehicle through which they first became aware of the condition (for a description of the media role in GWS please see Chapter One). The media has a primary role in advertising the condition. Many critics have suggested the media played the dominant role in the creation of GWS as well as other new illnesses. Barsky (1988), for example, suggests medico-media hype "induces a cultural climate of alarm and hypochondria, undermining feelings of well-being" (p.416). Others suggest a more complicated relationship between the media, sufferers and illness. Wessely et al (1999b) argue that media reporting may result in people re-labeling existing morbidity as disease. The illness they choose very likely is the result of media coverage. For example, many patients attending CFS clinics remark on how they were finally able to make sense of their symptoms and give their illness a name after hearing media coverage (Clements et al 1997).

The creation of post-war identity and community

Almost all of the sufferers I met had left the military. Many had taken voluntary redundancy as the result of 'Options for Change,' the move to downsize the military which occurred immediately after the war. Others said they left because their contract had come to an end or because they were too ill to continue. Gulf veterans' associations provide a much-needed community and identity for their members. When discussing the association, many veterans describe a feeling of belonging, and suggested it was "one big family." They explain that other members were similar to them; they share an understanding of military life and of the illness. Illness remains at the centre of the organization with almost all of the members being ill themselves. It appears that to be a member, one had to be ill and attribute the illness to the Gulf War.

Interestingly, I noticed that much of the organization of the association is created along military lines. At the AGM I was immediately informed that all our meals were to be in the cafeteria at set times. The veterans liked things to be regimented, I was told. Although bitter with the forces, the veterans I met are surprisingly loyal to the military ethos. Their identity remains linked to their previous role as soldiers and the association played a key role in that connection. I soon came to expect displays of their military identity in their homes. Some veterans, such as Kevin, said the reason why they had not joined any Gulf veterans' association was because of this attempt at re-creating military life:

It's all army oriented. I'm trying, not saying get away from it, because most of my friends are still in... and that's the only contact I have with the army.

Tony, a veteran who is skeptical of GWS and the veterans' association, told me that he felt he was different from the majority of people he met at AGM. He found that they were not as "rational," as much of a "realist," as he was. They tried to convince him that he was ill and he explained that the camaraderie is a major factor of the group. Below, Tony describes the first day of the AGM where Elaine, a member of the association, stood up and read a poem.

She got up and spoke and she was very emotional. I'm not like that. There seemed to be very emotional, insecure people there. And I'd like to think of myself, I'm not insecure... I see things as they are. I don't believe that I have GWS. And they tried to convince me, and they did. Get people on the list, if you like. So there is a certain amount of convincing people that they are ill. You are ill and you believe it to a degree and then in the cold light of day... I think they're all bitter with the army. So they've got this thing where they've been done over or they've been cheated... Perhaps they all felt like they needed to be in a group. They need to be in a community, I don't know. It was the one binding factor, if you like, that we've all been in the Gulf. There is a big camaraderie thing... A lot are TA, TA para³. Perhaps the TA people are more ready to believe that they have been crapped on than the full time soldier. Because the soldiers, they

³ Parachute regiment

tend to have a bit more of a belief in the system. You have to believe in the system. If you think about it they rely on their officers and their whole army environment. They trust it implicitly because it's a life saving factor. You know, you are led to believe that the officers' decisions... are the right ones and the best ones. Whereas the TA always got that percentage of their life that belongs to civilian. And there is a little less trust, if you like. They are probably more likely to see a cover-up or a cock-up within the army than the full-time soldier.

Tony observes that the creation of a community was central to the GWS movement; that people were in need of a sense of belonging. He also notes that the organization contained many TA soldiers and this might account for their perception of the military and their suffering. He further stresses that an important aspect of the illness and its association is the desire to be part of a group, particularly a military group.

To me, that seems like a comfort tablet. He's thinking, "It's got to be something," that seems to be the easiest option. So you tend to get all your illnesses and say, right that has to be GWS. There are no typical symptoms of GWS, so you tend to make them up. I'll have that, that and a bit of that. You do, you do! You get caught up in this whole thing. My first conversation with the girl, Kerry, the first question she asked me was: "have you made a claim?" Hang on, can I get to the point first? I haven't told you what I had. It's an automatic assumption with everything. And I thought that was strange. I don't deny that there is something, but there are a lot of people jumping on the bandwagon... it's an excuse for their illnesses. There are genuine illnesses that have probably got something to do with the Gulf, but I don't think it's to the extent that people believe it is. But when you're there you tend to get caught up in it. You get railroaded, not railroaded as such, it's the Gulf camaraderie. The old army thing. You feel camaraderie with the people there and you play the game and go along with it. I think some play the game and they become convinced. And you get people like me.... I was going to get tested, I was going to go to Paris this month and get all sorts of tests... But I got home and I thought, why? I don't feel that bad.... People tend to label themselves, they tend to want a reason to be ill. So they say its Gulf Syndrome and in a way it's honourable. It's an illness that is down to an active service. Because soldiers like to feel proud of what they've done. And if you are ill and you can put it down to serving in an active theatre of war you can say, that's GWS. It's the hero thing.

Tony is an interesting informant as I observed him move from a cynical viewpoint, to one where he became convinced of the illness, back to a position of skepticism. I met Tony at the AGM, which was his first contact with the veterans' association. During the AGM Tony often sought me out to discuss GWS. When we met a few months later, he had dismissed GWS and had an interesting perspective about the veterans' association and GWS:

But as I say, I was more caught up in the euphoria of being there, rather than being convinced that I was one of them.... I know guys who are still serving who were in the Gulf, hundreds and there is nothing wrong with them. You tend to want to believe... you get caught up in the whole thing and I just got carried away. It carried me away, 'Ah, God, I'm ill.' 'I've got to put this claim in.' [Did you start thinking that you were ill?] Yeah.

Tony also explained that whilst at the AGM he was shown a list of symptoms and that had worried him. He said that he found himself beginning to slot into the profile as he could relate to many of the symptoms. However, he now felt that the symptoms are very unspecific and believes that many of "the average person on the street" would similarly be able to tick off many of the symptoms. Much of the discussion at the meeting, he said, was about what symptoms each other had and he found himself "getting more and more into it." Upon hearing the conspiracy theories he initially was reluctant to believe them, but found them sounding valid. In addition, having "highly qualified" people speaking in a convincing way about the condition made him more convinced:

The argument that these highly qualified people standing at the front saying 'you're ill,' which they basically did. Come on, he did, didn't he? He said 'you're all ill.' You are being told go claim get a form on the way out, they're on the back desk. If you want to know what your symptoms are, the info's on the back desk. That's me, ahhh, that's me. You were picking up millions and millions of paper. What a load of pants. It was. I got away from it and thought, hang on. I don't believe I've got it. I told you at the time that I wasn't completely convinced.

A small number of veterans, mostly well, explained to me that they had chosen not to have any contact with the associations. Some, like Peter, suggest that the associations

made things worse as they made people focus on their symptoms. Others, such as Andrew, resisted joining Gulf veterans' associations because he disagrees with their focus on compensation. He perceives them as a group of mainly TA and reservists who were simply "kicking up a fuss" and guide people in a search for symptoms. Indeed, a number of people suggested to me that veterans' associations were detrimental to the health of those involved in that they "wind each other up" and allow conspiracy theories to breed. Others, similar to Tony, suggest that the associations consist of individuals who aspire to the status of hero. As Frank explains:

One of the reasons, I've seen it before. I've seen it after the Falklands conflict. Everybody came back and were made heroes, you know. And then after a couple of weeks, everything died down. Some of the people were going, 'but I'm still a hero, why are they not treating me like a hero anymore?' And they couldn't accept it.

As one can see from the above quotations, some veterans think the veterans' associations make the situation worse by allowing people to dwell on their illness. Some, like Tony, express the concern that the associations play a role in convincing people of illness that may not, in fact, be present. Associations establish a community, something that is seen as important in the post-war/ post-service environment; but it is a community based on illness.

Producing a self; creating a story

Both Giddens and Beck see modernity as impacting the self and the way the self is constructed. As Beck suggests, "socially prescribed biography is transformed into biography that is self-produced and continues to be produced" (1991:135). As Caplan (2000) says of Giddens' work, "self-identity becomes reflexively organised and individuals are forced to negotiate their own lifestyle choices. Lifestyle implies choice within a plurality of possible options and is 'adopted' rather than 'handed down'" (p.5).

Our "culture witnesses a kind of collective hypervigilance about the body, a sensitivity to variations in weight, for example... or bowel consciousness" (Shorter 1992:295). Increasingly, our identity and concept of self is tied up with our bodies and our health

(think of plastic surgery, fitness regimes, diet regimes). Gluten-free, non-dairy, organic: you define who you are by what you do to and put into your body. To be true to yourself, your 'authentic self', you must know what may be wrong with you. There is a sense that to be a responsible individual you must monitor closely your health and any potential signs of problems even if you are not aware of them.

There is a growing body of work, following Foucault, examining how individual control over health and the notion of risk is increasingly internalised as part of a subjective sense of self. This includes the increasing phenomena of 'healthism' (Becker 1997) in a Euro-American context and the importance placed on individual health awareness as part of a public health agenda (Lupton 1995). For example, Rose explores the dense interconnections between active patienthood, the project of the 'self', the growth of a 'psy' discourse and neo-liberal governmentality (1996). At the same time Kohn and McKechnie (1999) draw attention to the contradictory power of a public health model that gives people increased responsibility to look after the health but by so doing also enables them to question it. They point out that this is a paradox most strongly felt where the boundaries of health are expanding.

Beck and others have described the way in which living in contemporary society requires a reflexive "do it yourself" approach to one's biography. Dumit (submitted) has argued that new illness movements, like GWS, provide such "construction kits of biographical combinations" (Beck 1992:135). He points out that one place where we can directly see this active, reflexive theorizing of society and their place in it, is on the Internet, where these illness movements have websites and use net discussion groups, such as we see with the Gulf veterans and their associations. Thus, illness movements such as GWS and CFS are in part a conscious struggle over the power to construct new identities, to reinterpret norms and to reshape institutions (Melucci 1989; 1996 in Dumit submitted). Further addressing the questions of identity, Dumit (1997) has drawn attention to the way that the materialities of knowledge or medical practice, for instance risk figures, can become tools for identity formation, in the service of particular kinds of selves. Silverman points out the distinction between the 'lifeworld' of patients and medicine "itself is

problematic precisely because of the way medical discourse has entered into our own accounts of ourselves” (1987:198).

People are more likely to see their symptoms as “representing some occult, potentially serious and certainly biomedical process” (Wessely 1998:81). We have become more aware of health but also prone to health scares, to blaming “allergens” and other environmental factors for failures and unhappiness, to seeking medical solutions to life’s problems. We are less tolerant of aches and pains. Anything that falls outside of complete health and happiness is not tolerated and needs an explanation. It needs a cause and by uncovering cause we uncover who is to blame. Gulf veterans can be seen as experiencing a kind of twentieth/ twenty-first century malaise which is at the heart of most new illness movements. Like the majority of people, veterans are likely to seek out a medical explanation for their sense of malaise, misfortune and unravelling. For Gulf veterans, however, there is a well-documented, well-advertised illness within easy reach: GWS.

GWS provides an all-encompassing explanation for a sufferers’ unsatisfactory state; it is a “biographical construction kit” (Beck 1992:135). New illness movements, such as GWS and CFS provide a meta-narrative where all experiences can be linked together and combined into one sweeping narrative. Your wife left you, you have a rash, you cannot find employment, you are suddenly aggressive, you were diagnosed with MS: one of these things or in any combination can be incorporated into an overall diagnosis of GWS. Furthermore, a diagnosis of GWS reminds the sufferer and those around him that he fought, that he was once a strong, masculine man who made the utmost sacrifice for his country: he went to war.

Both Beck and Giddens see in modernity a continuing search for morality. This is sought around the body with exercise and dietary regimes, which some have termed ‘narcissistic’, or through social movements. In our culture there is a growing fascination with diet, nutrition, and weight loss. Giddens notes the work of Christopher Lasch who has argued that modern society has produced a ‘culture of narcissism’: “Giving up hope

that the wider social environment can be controlled, people retreat to purely personal occupations to psychic and bodily self-improvement” (Giddens 1991:171). Yet, paying increased attention to one’s body and one’s health tends to make one assess them more negatively, with greater feelings of ill health (Barsky 1988:416). Several investigations have shown that bodily awareness, self-consciousness, and introspection are associated with a tendency to amplify somatic symptoms and to report being troubled by more symptoms (Mechanic 1983; Miller et al 1981; Pennebaker 1982). The military, with its focus on the body and its continual testing of fitness and health may create a group of people who are more likely to focus on bodily complaints and symptoms.

THE ROLE OF WOMEN

One thing that struck me about the NGVFA was the role of women in the association. Whereas the majority of sufferers were men, wives and partners of these men played the dominant role in the organization of the movement. Women run the association and appear to be integral in the push for the recognition of the illness, men seem to merely remain as figureheads. Indeed, wives, partners and mothers are central to identifying and diagnosing the illness in their loved ones. Women have a further role in the illness in that they can contract the illness through contact with veterans, as will be discussed in depth in the next chapter. Thus, there is agency by proxy. Shriver et al (2003) found that women played a dominant role in the GWS movement in the US. They found that their central role was not due to their gender, but rather to their health status. Activism transforms many women by endowing them with a sense of empowerment and a broader concern for social justice (Shriver et al 2003).

The way the NGVFA itself is administered reflects the role of women throughout the GWS movement. Rebecca and Kerry⁴, the wives of leaders of the association, administered the office and the association whilst their ill veteran-husbands stayed home. While the women are in charge of the charity offices, their husbands maintain official control through their roles as chairman and vice chairman. Men’s roles are more official

⁴ During my fieldwork the hierarchy of the veterans’ association was altered: the vice-chairman, Kerry’s husband, left her for an ill GW veteran who was a member of the association. When he did so he also left the association. Kerry continued in her role until a few months later, when she left the association.

in that they had titles and were on the board of the charity; whereas women, despite their position, do not have official titles. Jack, who works in the office was given the title of treasurer and also played a public role.⁵ Although the women were responsible for the day-to-day running of the association, the men remain the public face of the association. At the AGM and at meetings like the RBL Gulf Group meetings, it was John and Jack who represented the association. Indeed, at the US congressional hearing Rebecca and Kerry were entirely absent. Media portrayals of GWS focused almost entirely on the men and John and Jack were constantly quoted in various news reports throughout my fieldwork. Rebecca often told me that it was up to the women to do everything. She explained that the men forget to do things, so it is entirely up to the women.

Kerry said that the other veterans forget that she herself was in the forces because she is a woman. She explained that it was the same with all the women- they are seen as “a mother figure.” Women veterans had an ambiguous role in the organisation. Meg, an ill veteran, said most people presume that it was her husband who went to the Gulf, not her. Women are not immediately thought of as possible victims. Veterans ask them for advice and expect them to be in a caring and supportive role. Women play a dominant role in the necessary administration of the charity, but remain in the background or are entirely absent in the public dialogue surrounding GWS.

‘My man just isn’t the same’

During my interviews with GWS sufferers it became apparent that it was often wives, partners and mothers who first identified that their loved one was ill or having problems. They often said, “He came back from the Gulf a different person.” The way Debbie and Mark describe the discovery of Mark’s illness is characteristic of the way in which veterans explain the detection of their illness. Debbie told me that they had met the veterans’ association in 1994 when they contacted them after seeing something in the paper about GWS. Debbie explained that before they saw the ad she knew that Mark was getting ill, but he would not admit there was anything wrong. Debbie emphasized that although she could see Mark was ill, he could not. She explained that she noticed he was

⁵ Jack was promoted when Kerry’s husband was dismissed.

having joint pain and that he was distracted and irritable. Mark said he “just didn’t think about it.” He has, Debbie explained, what she called ‘pride soldier syndrome,’ he simply did not want to think the army had done something to him. It was only after the two children were born that Mark began believing that something was wrong.

Similarly, Ann explained that it was her family, not her, who first made the link between her declining health and the Gulf War:

Funnily enough, it was my family. It was my mum who said, ‘maybe it was the Gulf.’ I would get really angry and I would say ‘it’s my stomach, I’ll get it sorted out’. I just was not me, not myself.

Mick explained that it was his wife who was concerned about his health. Although he was well, he said that his wife thought he had changed after they got married. She thought that he was “grumpier” and she had suggested maybe this was linked to the Gulf. Most veterans explain that it was their partner who was concerned and who researched GWS, contacted the association and pushed their partner to participate.

Many veterans explain that discussions of GWS mainly took place amongst wives and partners of veterans. Nigel, a well veteran, reports that he believed that friends of his were ill with GWS, but they would not admit it. I asked if they did not discuss it, how did he come to think that they were ill. Their wives, he said, told his wife. On many occasions veterans explain that their wives spoke about their partners to other wives and this is how they came to suspect GWS. I would suggest that the dominant role of women in identifying illness in their partner and pushing for a GWS diagnosis may be caused by an underlying dissatisfaction with their husband’s behaviour and performance. Women may be eager to maintain their partner’s identity as a soldier, through GWS and veterans’ associations, in order to preserve or re-establish status. Furthermore, employing GWS may be an acceptable way to explain the failures and inadequacies they observe in their husbands (see Chapter 7).

YOU AREN'T MAD

One of the main ways narratives of GWS are structured is around a denial of psychological explanations. Support groups seem to be key in the construction of the narratives in this way. It is the insistence on a physical, biological explanation, rather than one that may integrate social or psychological aspects that characterized the heart of the associations' and advocates' arguments. During the early stages of the GWS debate veterans denied outright any psychological component to the illness. At the time of my fieldwork psychological aspects of the condition were accepted, but only as a secondary aspect of their condition. Although they did suggest that there might be a small psychological component, veterans stress that this is neither central nor primary to their condition.

Veterans dismiss the idea that the illness is psychological in nature and see this explanation as part of a MoD conspiracy to ignore their suffering. Discussions about the nature of the condition often return to the source: the toxicity of the war itself, as John suggests:

What you can see is what's happened to British Gulf war veterans since the Gulf War is that there's been a manipulation of the illness into what the Ministry of Defense have wanted to. And what I mean by that it's been pushed down the road to psycho babble... that it's all in the head and up to the individual. Which is quite clearly non acceptable [sic].... We've always argued that it is, indeed, a syndrome whereas the MoD have said no its not, it's the same illness that happened in previous wars. Well that's not the case. In previous wars ...they've never identified their troops as being exposed to a toxic chemical. Well, in this case it has happened.

It is clear from the above quotation the way in which veterans dispute psychological explanations of their physical symptoms and the way they interpret such suggestions as being told "it's all in the head" which they equate with being told it is "imaginary". Often contested conditions like GWS and CFS are seen as unreal or non-existent, "all in the mind." At other times "they are viewed as a moral judgement on the sufferer- reflecting qualities such as lack of effort, poor motivation, and so on. When such a patient is

“diagnosed as depressed, this can be equated with the message that the sufferer is not really ill, but malingering, shirking their duties, and so on” (Wessely et al 1999b: 326). This is reflected in John’s quotation above, as he argues that the MoD is saying it is “up to the individual”. Wessely et al (1999b) suggest some doctors do equate psychological disorder with unreal disorder: as a result of this “potential stigma, patients are naturally eager to avoid psychiatric labeling and seek a medical or other external, environmental explanation for their distress” (Kirmayer 1999: 274).

Though psychiatry and many other areas of biomedicine are shifting towards a more dynamic, multifaceted and psychosocial model of illness (Bakal, 1979), there appears to be continued reliance by sufferers on a restricted biological explanation. As such the majority of GWS sufferers have only had recourse to a range of different physical theories such as the cocktail of vaccinations or depleted uranium. To refute the psychological theory, John points to the novelty of the war environment itself: as a toxic war. John stresses the uniqueness of the environment and the illness, rejecting work which suggests that it is similar to other post-combat syndromes. The suggestion that GWS is one of a long line of post-combat syndromes posits that it is a psychological reaction to war and that physical symptoms are a form of somatization. Veterans are often told that their illness is caused by or, at the very least, amplified by their psychological distress. The label, ‘psychosomatic’ is often applied to them, much to their anger. For, veterans are well aware that while the term “psychosomatic” includes the possibility of a psychophysiological basis for symptoms, in practice it often amounts to a dismissal of illness as “all in the head” (Kirmayer 1999: 273).

GWS and other new illnesses are often concluded to be a form of somatization: defined as the propensity to experience and report somatic symptoms that have no pathophysiological explanation, to misattribute them to disease, and to seek medical attention for them (Lipowski 1988). Goldberg & Bridges (1988) argue that somatisation is a route through which people unsympathetic to psychological illness can enter the sick role while psychologically distressed. Veterans are well aware of this diagnosis of their suffering and refute it passionately. One veteran said, “somatization is that you think you

are ill but you aren't". Vic, a non-deployed veteran⁶, who reported being diagnosed with "somatization," said:

They say I am not ill. They said that it's my head telling me I'm ill. They said that I have somatization syndrome. I put up a claim for it and got nowhere.... It's not somatization syndrome... I saw Dr. Smith and he said it [somatization] is something a girl in her young teens would get.

Through their dismissal of such theories, veterans are simply following common understanding that psychological problems are less serious and more the fault of the sufferer. Psychological explanations simply do not resonate with their experiences: their somatic distress is persistent and the idea that this very real bodily pain is caused by psychological distress simply does not make sense.

During his talk at the AGM, Hooper criticized various papers that had been published; reflecting the polarity of the debate, which was discussed in Chapter One. He focused on Wessely's and Lee's work. In the following quotation he discusses a recently published paper by Lee:

It ignores most of the evidence in the same way as the war syndromes paper⁷ ignores most of the evidence. That's what wrong with it [getting increasingly agitated]. For heaven's sake let's do some good science. And get it right. The birth defects information is wrong. It's misinformation, it's uninformed. He retreats into psychosomatic, somatisation, war syndromes. He actually uses all those in explaining all these symptoms, these MUPS. And behind it is the military, political, corporate agenda. About blame, about accountability, about responsibility, about making money out of warfare. I've said this to the Gulf vets and I've said it in a meeting... I cannot recommend cooperation with the Medical Assessment Programme until this attitude changes and until truth and justice become its goals. You guys have withdrawn from this because you feel dissatisfied and abused by this. You are right to think like that. Until it changes there is no way I'm going to say to you guys,

⁶ Vic was not prepared to go to the Gulf War nor was he deployed there. Instead, he believes he contracted the illness when he worked on machinery returning from the war. He believes the machinery was covered in DU and that is how he contracted GWS.

⁷ Hooper is referring to the paper written by Jones and Wessely which suggests that GWS is similar to other post-combat syndromes.

give it another whirl... This is the sort of stuff they're putting out. This is deception, it's lying, it's bad science and it's serving a different agenda. Sorry to get so strong about it, but that's how I feel.

Hooper continued to criticize the MoD and called scientific papers which did not support biological theories of GWS as "duplicitous." Furthermore, he condemns attempts to explain the illness in terms of stress or psychological problems and labeled scientists putting forth such theories as the "stress camp." Clearly, Hooper, the scientific advisor of the two associations, equates the theories of somatization and psychological causes with denial and dismissal. He is disgusted with any suggestion by the MoD or scientists that GWS might be one of a long line of previous war syndromes or that it may be caused by stress or other psychological factors. For Hooper and his followers, physical equals real and any other explanation suggests imaginary illness. Hooper is not the only GWS advocate/ scientist who rejects any psychiatric explanations. Dr. David is a psychiatrist who works extensively with Gulf veterans. He argues that Gulf veterans differ dramatically from veterans from other wars and suggests that their PTSD is "different" and states that the vaccines are to blame.

As mentioned previously, during my fieldwork I was invited to a conference hosted by the RBL. During the meeting there was a clear agenda to dismiss any findings which suggested the illness might be due to stress or other psychological factors. As one of the US Congressmen stated:

They say maybe it's stress. War is stressful. Forget about it. I hope this is not the conclusion.

Another US Congressman gave an emotional plea during which he said,

The plight is real and it is physical.

Along the same lines, Ross Perot, the Texan millionaire who has funded GWS research and has been a public advocate for recognition of the illness finished the day's proceedings saying simply,

I can see this is not stress.

Again, we can see the way explanations pointing to stress are disregarded by veterans and their advocates in that they are seen by them as somehow less real, less important than physical explanations.

During the AGM one of the sessions was with the representative of the legal firm representing the veterans. The atmosphere was rife with tension as the veterans clearly felt let down by their legal team. The lawyers were suggesting that their experts had not found sufficient evidence of a unique, physical GWS and felt unable to take the case to court. There was a great deal of restlessness as people wandered in and out of the room, muttering angry words. At one point the lawyer mentioned an Institute of Medicine paper published in 2001, which discussed possible treatment for Gulf veterans. He explained that the paper reported that many veterans complain of CFS, depression and fibromyalgia and suggested certain treatments such as cognitive behavioural therapy and graded exercise therapy. With this the room erupted. People in the audience were extremely angry and a number stood up and stormed out of the room. One veteran asked, "Do you know what CBT is? It's used with mentally disabled children who are institutionalised." Another said, "It's all behavioural." A different veteran said "they are saying that it is all in our heads." To this the lawyer responded that regardless of what the thought behind it was, if it worked they should try it. The audience were clearly angered by this suggestion and one said, "they are trying to change behaviour to suit our illness. It's not a cure." Thus, "all in your head" was equated with "psychological" which, in turn, was equated with "made up". At one point a large and very angry veteran stormed up to the front of the room, stood menacingly in front of the lawyer, propped his leg onto the table, pointed at it and angrily asked "is this all in my head?"

One of the main foci of the veterans' associations is disputing those who equate their illness with PTSD. As John announced at the AGM, "the NGVFA advocates that there is a GWS; that it is an illness and it is not just PTSD." Although the main focus of veterans' associations is to reveal the illness as biological and physical, the associations had responded to discussions of PTSD. They had constructed a theory which incorporated PTSD into the illness. Veterans and their advocates were often quoted in the early days of GWS saying that the illness could not be "dismissed" as PTSD and their main reason for this was that the Gulf War was neither a stressful nor a traumatic war. This theme has continued. With veterans saying that their illness could not be due to psychological causes because they did not see anything nor experience anything particular traumatic.

Lance, an officer in the Gulf War and a well veteran, explained that he did not think there could be a link between GWS and PTSD because of the nature of the war and the preparedness of the forces.

Shell shock is PTSD. You see some pretty bizarre manifestations of shell shock. I wouldn't say it wouldn't be impossible for there to be some sort [of link] but I think it's unlikely. My experience was that the British Army were pretty well trained. The Gulf War was not an unexpected experience.... It wasn't stressful. We weren't in situations that we never thought we would. Our training was pretty good.... I haven't come across anyone with PTSD.

Lance's comments illustrate a common theme amongst Gulf veterans, which suggest that PTSD is caused by un-preparedness and the shock of meeting something unexpected. Thus, the Gulf War could not have produced a high proportion of PTSD sufferers because they were well-trained.

Veterans remain skeptical of PTSD or depression diagnosis because it does not resonate with their war experience. Stan had been diagnosed with depression and PTSD, but remained suspicious as to the cause of his illness. He explained that he had been

prescribed medication for depression; but had stopped taking them despite them making him feel better because,

If I feel better it's not my life, it's the drugs. I want my own life. It wasn't really me doing it, it's the drugs not me.

He continued,

If it was just post-traumatic stress [PTS]. My excuse is... I enjoyed it... They say the PTS is from the stress and the violence, but to me it was a job I expected to do and I had to do it. PTS to me, I don't have it. The symptoms I have, they call it PTS. They put it down to that. When you see all these films with Vietnam vets from Vietnam and all that. They have flashbacks. It's like scary stuff. I think it's experiencing something that you're not really ready for. It's a shock to the system. If you are put in a situation you don't know you're going to experience. In all my life I wanted to experience combat... I was ready for it. I think [GWS is] a combination of the injections. One or two of them or the combination affected the nervous system. Did something to the nervous system. Stopped the brain from functioning well.... There is PTSD, that's definite. But when you're ill and the doctors don't know what's wrong with you it's easy to label it... I understand nightmares and that but it was the best experience of my life. Why would you have nightmares of something I enjoyed?

The above comments suggest that PTSD is inextricably linked with Vietnam and the horrors experienced by veterans there. Many focus on the fact that experiences in Vietnam were far more horrific than those in the Gulf War. Veterans would also emphasize that those who fought in Vietnam were not prepared for what they were to do and see. Veterans suggest that they could not have "true" PTSD because that would mean that they had not been prepared adequately. They say that they were well trained and prepared for what they would meet out in the desert. To have a diagnosis of PTSD would mean that they, somehow, were not as strong soldiers as they felt they were. This viewpoint is likely linked to the fact that the war was seen as a "quick, smart and clean" war. I was often told that the illness could not be PTSD because there was not anything

traumatic there and that it was such a short war, reflecting the public understanding of and media portrayal of the war.

Veterans' discussions of PTSD seem to reflect an anthropological reading of the illness. PTSD is a metaphor, a construction which emerged out of post-Vietnam America, and it would seem that does not fit the veterans' experiences. It does not make sense for this situation: when it becomes reified it stagnates and no longer works. This is further reflected in recent work by Wessely's team which suggests that conventional psychiatric concepts, such as PTSD do not explain GWS (Ismail et al 2002). They have found that most disabled Gulf veterans do not have formal psychiatric disorder and that PTSD is not higher in Gulf veterans than in other veterans.

Veterans' groups suggest that the illness differs from PTSD for a variety of reasons, one of which is that Gulf veterans experience increased rate of somatic complaints. Jack explains that he sees many other groups of people suffering from PTSD, but thinks that GWS and its related PTSD is very different:

Black schoolteachers who were told, no, you can't teach in this school because it's whites only. All these people that you see day in and day out in the newspaper are getting vast sums of money for PTSD. They've not got chronic fatigue, they've not got aching joints. So what is it that the Gulf variant branch of PTSD? And you've suddenly got all these extra things. When day in and day out you see in the paper, the news article, on the news: all these other people with PTSD, but they haven't got that problem.

John suggests that whilst the MoD argues that those with PTSD are more likely to suffer from IBS, CFS or other somatic conditions, Gulf veterans have *all* of these conditions together. Furthermore, he suggests that the association and its members were not denying that they did not have PTSD, only that it was not the main reason for their illness and that it was a different form of PTSD. Jack agreed, adding:

If they are turning around and saying you've got PTSD. We are saying, we may have that, but there are also other external factors. And they are saying no, it's not, it's just PTSD. If that's the case then why are all these

black lesbian schoolteachers who are getting all this money from PTSD
why aren't they having similar things?

There was some ambiguity, however, about the role of stress in veterans' illnesses. Although they vehemently denied their illness could be equated with PTSD, they did acknowledge that PTSD was a *part* of their suffering. PTSD is seen by veterans as a separate problem, associated with, but not contributing to GWS. Veterans and their advocates sometimes suggest that psychological symptoms are the result of their ongoing battle to have their illness acknowledged, not necessarily the war itself. During the US congressional hearing advocates suggested that the high suicide rate amongst Gulf veterans was due to frustration at their illness not being recognized, rather than due to psychological problems. We can see here the way psychological symptoms become part of the explanatory model, subsumed in to support their physical reading of the illness. Another common argument amongst veterans' associations and their advocates is that although stress and psychological distress are part of their illness, it is not an original component. Causation only flows one-way: from GWS to PTSD and not vice versa. During the time of my fieldwork there was a mass action suit against the MoD. The veterans, along with veterans of other wars were suing the MoD claiming that they were negligent in their identification and treatment of PTSD. On May 21 2003 the courts ruled in favour of the MoD and the veterans lost their case (Dyer and Bosely 2003).

To make sense of psychiatric diagnoses, veterans point, once again, to a biological cause, saying that theirs is a unique form caused by toxic exposure. They believe that theirs was not a true PTSD, but instead a new illness that presented like PTSD, but was not psychological in its origin; or a new form of PTSD. Ann explained to me her understanding of the unique nature of GWS sufferers' psychiatric symptoms:

It's not a true post-traumatic stress. It's to do with chemicals or whatever, toxicity that's causing this kind of psychiatric type set of symptoms, and it's to do with toxicity rather than... So I don't think to some it's a genuine PTSD, but that is how they are explaining it away. There are more veterans diagnosed, I'm sure, with PTSD in such a short war than there is for some of the ones, compared to the Vietnam War, which was a

terrible war. How's that? It just doesn't make sense. [And do you see it as a toxicity that effected the brain?] Yes, I do.

As the quotation above suggests, many veterans believe that their symptoms, which reflect a post-traumatic stress reaction are, indeed, a result of toxins to which they were exposed. John suggests that despite having no psychological cause, all veterans had PTSD.

They've all got PTSD, they've all got depression and it's just bizarre that the Ministry of Defence can turn around and say ...they've all been to the war, they've all got post-traumatic stress. Because post-traumatic stress in its diagnosis is a natural reaction to an unnatural situation.... Now, many of the veterans, some of them were cooks, some of them were clerks who never saw anything distressing other than having to respond to the chemical alarms which is quite stressful enough, but you wouldn't imagine it would be enough to send someone to a post-traumatic stress reaction. It depends on the individual, but not great groups of them. So from my own unit...32 field hospital there something like 23 of us with exactly the same signs and symptoms.... We've got two from the same unit, one's committed murder, the other's committed manslaughter.

Following John's comments, Dave, another participant of the focus group, said

And it's not only what you would call the front line or the middle line people. I was in Riyadh, which was not the front line but even then you are saying, trauma, illness, GWS, whatever you want to call it...it's not only front line troops that are suffering from it, it's right across the board.

Jack then added:

If you compare it to something like the Falklands, you find a lot of the front line troops suffered from PTSD; but, obviously, a lot of the echelon troops weren't suffering. And certainly those that were suffering from PTSD, the front line troops in the Falklands; they haven't come down with half as many, three-quarters as many illness etc than what Gulf War veterans have. And that's an immediate comparison from one war to another within nine years.

John then repeated his assertion that this would point to the fact that their PTSD was, in fact, chemically induced. Thus, because so many GWS sufferers were not front line troops and not exposed to trauma, the theory of “traditional” PTSD does not make sense. George further explained the way in which their psychological problems differed from those of veterans of other wars. Most importantly, he said, theirs was caused by toxins and resulted in brain damage:

Well, it's all part of the same thing. I don't know whether you've spoken to Dr. David yet. He actually says, he's a great bloke, he actually says that because he's worked with ex-servicemen for umpteen years, this is not like type PTSD that, say, WWII or Korean vet or Falklands vet has got. It's slightly different. What he thinks is that, well, what that research sort of shows, is that umm, the NAPS have done some damage to the brain. It's all, I always say, 'so-called PTSD', [Does it make any difference for treatment or the way people experience it?] Umm, well treatment-wise, yeah, because with your actual neurons in the brain being damaged, there is something you can't replace. Whereas with normal PTSD, with a lot of counselling and a lot of help, you can learn to overcome it. [So what you are saying is Gulf War PTSD or so-called PTSD is not treatable, whereas other PTSD are?] Yeah, yeah. You can still have counselling and it helps to a certain extent, but umm, 'cause the brain itself has been physically damaged, there's not a lot they can do about it. [laughs] ... No matter how much counselling you give somebody, it's never, you're never going to cure them. That's why we've got such a high suicide rate.

John, George, and others suggest that whereas veterans with PTSD from other wars improved with treatment, Gulf veterans do not, further supporting their theory of a unique pathology. A fact, they feel, supports their theory that their PTSD was chemically induced and involved some kind of irreversible brain damage.

Veterans and their associations stress the biological component of the illness even in relation to their psychological problems. Such a reliance on biological explanations can be seen as characteristic of other new illness movements such as CFS. As we can see from the above discussion, one of the main characteristics of the GWS movement is a strong anti-psychiatry rhetoric, a characteristic it shares with CFS and other new illnesses (Wessely et al 1999b). For example, the popular literature on CFS is suffused with the

underlying message that psychological disorders in general, and depression in particular, are diagnoses to be avoided (Wessely 1994). A variety of “strategies are used to counter the threat posed by psychological disorder, this includes insulting or discrediting psychiatric research and researchers, denying the available evidence, altering the meaning of psychological or psychiatric terms (antidepressants are thus immunomodulators, or effective against food allergy), seeing psychological disorders as solely organic conditions, or only as the consequence of CFS” (Wessely et al 1999b:324). I often saw these strategies at work with veterans and their associations; for example, some veterans who are on antidepressants reported to me that they were prescribed these medications because they “helped muscle pain.” In particular, veterans’ associations stress that any psychological components are due to organic conditions and/ or only a consequence of their main illness: GWS.

This reliance on a biological explanation reflects a continuing bias within biomedicine. Despite a conceptual and empirical union of the psyche and soma, the implicit dualism of biomedicine makes a significant distinction between “real” disease, with demonstrable physical pathology, and “imaginary” illness, which arises exclusively from patients’ cognitive processes (Kirmayer 1988). This distinction is clear to veterans and they understandably focus on uncovering and “proving” the real status of their pain and suffering. Psychological explanations “generally convey connotations of problems being at once less serious, less deserving of the conventional sick role, more due to the patients’ own bad actions or character flaws and therefore, more directly damaging of their social identity” (Kirmayer 1999:274). Thus, psychiatric explanations are perceived as placing responsibility on the shoulders of the sufferer. The psychosomatic explanation often blames the patient for their illness (Aronwitz and Spiro 1988; Ware 1993). Wessely et al (1999b) have suggested that a rejection of psychological explanation protects people from the stigma of being labelled ‘psychiatrically disordered.’

Psychological distress is often stigmatised in society at large, but in the case of GWS, this is doubly so. In a culture which focuses on masculinity, strength and rationality above all

else, psychiatric problems remain highly stigmatised. One veteran, for example described PTSD as:

That's people that I think came back, 'I'm a war hero' and all that because a lot of the people out there didn't actually see anything to give them traumatic stress.... Some people, I feel, are weak.

Another veteran, this time a high-ranking officer said:

My question is why don't these people call it stress and get on with it. Why call it GWS when you can't treat GWS? Maybe it's to do with compensation. Having said that, there is an element of: you lose your macho image if you are said to be suffering from stress. Seen as wet, weak.

Others report that if you were seen to be stressed or emotionally struggling you would not be promoted. Furthermore, it is suggested that if you went to a counsellor because of stress everyone would find out and it would be "career suicide." I was told that if one were to be seen as suffering from stress or having psychiatric problems one's gun would be taken away. I do not think it is over-stating the case to suggest that this is seen as submission or even a form of castration. Throughout my interviews psychological problems were associated with weakness and failure. On a number of occasions veterans used the word "psychotic" for "psychiatric" and suggest that when someone suggests the illness is psychological in nature they equate this with being told they are mad. Wessely et al (1999b) note that psychiatry is often seen as only dealing with the insane.

CONCLUSIONS

The veterans' association I have described above needs to be seen in the context of patient as well as ex-servicemen activism. The rise of patient activism can be seen as part of a larger movement of medical consumerism during the 1980s. New and contested illnesses are characterized by a movement and support groups; furthermore, the support groups tend to be split (Dumit forthcoming), as is the case with GWS. Dumit (forthcoming) notes that there are a lot of "structural" (historical, social, cultural, political

and economic) reasons why the sufferers of some kinds of illnesses organize into movements and intervene in the process of diagnosis and to get help. Two of these reasons are the need for a diagnosis in order to gain compensation or disability status and avoid the stigma of mental illness.

As mentioned previously, Gulf War associations provide an identity for sufferers and an explanatory model for the veterans' experience of disruption. As Dumit (forthcoming:8) suggests:

In a sense, these movements represent collective action in the face of the individualizing of problems at every level. Collective sharing of personal narratives helps show that psychological blame ("It's all in your head") and psychological responses ("Why me?") are structurally produced and can be resisted. New social movements in general provide the space and time for creatively and meaningful construction of new experiences and social roles. Collective sharing of useful information is another primary purpose of these movements, and specifically in relation to institutional sites of struggle- legal courts, insurance agencies, mass media, government. Most of these institutions depend upon control over the flow of information and impersonal procedures for their smooth running. The collective wisdom of individual experiences offers powerful modes of resistance to this kind of power.

The veterans' association is central to GWS in that it provides a community which enables the veteran to reconfigure their post-war/ post-military identity. The support groups also provide a template which veterans can accommodate their unique experiences and create a biographical narrative. Central to this is the refutation of psychological explanations for their illness.

Sociologists have argued that the mobilization of veterans around GWS has been discouraged by various cultural forces (Shriver et al 2002b). They suggested by participating in military culture certain cultural values are learned which later obstruct veterans from organizing into a social movement and defining their suffering as an illness. These forces include their continuing patriotism and their tendency to value masculinity, strength and fitness whilst seeing sickness as weak and feminine. The

“unwillingness to be perceived as weak was the biggest cultural impediment to joining the movement” (Shriver et al 2002b:133). Furthermore, with the participation in military culture “individuals learned to value group cohesiveness highly and to avoid any activities that counter unity and camaraderie” (Shriver et al 2002b:131). Thus, joining a group which was seen as anti-establishment was counter-intuitive. However, certain strategies were employed to overcome such impediments. For example, “many veterans replaced their original sense of solidarity with all soldiers with a sense of connection to other veterans with similar understandings of Gulf War illness” (Shriver et al 2002b:132).

Although I can acknowledge such impediments, I would suggest that there are many more incentives to label one’s suffering GWS and mobilize as part of an association. Although I would accept that an emphasis on strength, vigour and masculinity characterizes veteran’s ethos, I believe that opposite to impeding the labeling of illness as GWS, it would, instead promote such an explanation. If one were feeling less fit, less potent and less masculine would it not make sense to explain such a state on one’s participation in war? These authors seemed to imply that GWS is more widespread than acknowledged, an assertion with which I would disagree. Furthermore, they maintain that GWS remains marginal, unrecognized by government and disbelieved by many. Again, I would argue that the illness is widely accepted by the general public and, thus, there remains incentives to interpret one’s illness as GWS.

CHAPTER 7 THE DISAPPEARING MAN: NARRATIVES OF LOST MASCULINITY

One day Rebecca said to me, “I think they are all turning into women”. This comment struck me and as I continued to interview GWS sufferers it took on more and more meaning. The issues of sex, sexuality, and reproduction appeared in sufferers’ accounts over and over again. Early in my fieldwork I observed a key meeting between Bob, an ill veteran introduced in Chapter Four, and Malcolm Hooper the veterans’ scientific advisor. The meeting was to prepare Bob for his war pension appeal tribunal the next day. Bob was attempting to increase his war pension by suggesting that he had additional illnesses and disabilities which were linked to service. This meeting reveals the themes to be discussed in this chapter.

Malcolm Hooper (M): Also you talk about arthritis. What I’m getting at is that vaccines can cause arthritis. You should not be getting arthritis in your 30s. Is there any history of it in your family?

Bob: No.

M: Have you got muscle pain as well as joint pain or can’t you tell?

B: I can’t tell.

M: Do they mention fibromyalgia?

B: No.

M: [explains that fibromyalgia is pain in the muscle and that there are a number of points on one’s back. Points out these areas to Bob]. There are 18 points: if you have pain in 11 you have it. Others clearly have it. It is rheumatoid arthritis which is immune problem. What I think ought to be done by anyone who is intelligent...you never had a hormone test, testosterone test etc. Key hormones influence development and maturation of spermatozoa and masculinity. Lots of macho stuff with testosterone, that would exacerbate the problem. But nobody has looked at that. Other thing they’ve made a lot of is obesity. But you don’t look obese to me.

B: I’ve put a lot of weight on.

...

M: What about your chest? Breathing all right?

B: Yes. But I have bitch tits. I told this to the Colonel when I told him about my facial rash.

M: Let me look at your rash. Looks like a butterfly rash, a lupus thing. What you call bitch tits- it’s called gynaecomastia. But I don’t see that in your records.

B: It’s a bit embarrassing. I was told that the doctor won’t do anything to it unless I get a lump in it.

M: Another vet had it and was too embarrassed to say anything. That would go with a hormone problem.

B: They put the bitch tits down to obesity. The doctor says on page 24 “he is very worried about his obesity and thinks he is growing breasts. He does not have gynaecomastia but is quite fat. He is quite depressed because of the war and needs drug therapy”.

...

B: What about suppression of sexual urges? They offered me Viagra but I don't want it.

M: What they mustn't do is offer you testosterone.

B: What about mood swings, anger, violence. I've wrecked four phones. I've seen a psychologist for 2 years.

This transcript reveals the way in which discussions of GWS include issues about physical forms of masculinity. Bob and Malcolm discuss Bob's lack of libido and the fact that he is concerned that he may be developing breasts. They talk about lack of testosterone and hormone problems, but they also discuss his heightened aggression. In this chapter I will discuss way in which GWS narratives focus on physical manifestations of masculinity characterized by bodily strength, vitality and potency. I then interpret these findings by suggesting that GWS narratives express concerns about masculinity, or, more precisely a loss of masculinity.

SEMEN

Foucault (1980) questioned why it is that our society sees sex as not just a means of biological reproduction or simply a source of pleasure but, instead, has come to be seen as the central part of our being, the privileged site in which the truth of ourselves is to be found. Narratives about GWS contain discussions of sex and reproduction and there is a high level of anxiety about these subjects. A unique aspect of GWS is its contagious nature: it can be passed by sexual contact, reproduction and even by living in close proximity with a sufferer. The main vehicle for contagion is semen. GWS sufferers believe their semen to be affected by their participation in the Gulf War. Thus, GWS does not just affect those people who participated in the war, but also innocent members of their families. GWS is seen to permeate the veteran's body and to invade those of his loved ones.

Infertility

A common theme in stories about the Gulf War is the concern that veterans may be infertile due to the exposures and preventative measures given to them. Abou-Donia, the GWS researcher discussed earlier, argues that the combination of chemicals given to protect Gulf War soldiers may have damaged their testes and sperm production, causing infertility. I found that this concern seems to be mainly contained in discussion by non-sufferers. This worry, for example, presented itself on a small number of occasions at the GVMAP. I also found that well Gulf veterans would discuss this as a possible and vague concern. However, discussions of infertility were rarely, if ever, contained in sufferers' own accounts. Infertility remains a dominant aspect of discussions of GWS in the media and had ramifications for the second Gulf war. In the run up to the recent war (2003) an article in the Sunday Times appeared:

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 directly links the soldiers concerns about fertility to issues about GWS; thus, we can see that infertility remains part of the public discourse on GWS.

Low Libido/ Impotency

Low libido and impotency are two of the most discussed symptoms amongst my informants. Veterans and their wives discuss their lack of interest in and inability to perform sex. Thus, the essence of masculinity- semen- is absent. They lack the ability to express and convey masculinity through the ejaculation of semen.

During my first meeting with the women who ran the veterans' association I was struck by how quickly their discussions turned to discussions of sex and sexuality. During our first interaction, Rebecca complained about her lack of sex life. She told me that John had just been put on Viagra and that she was very pleased about this recent development. During this same meeting Kerry, the other organizer of the association and a wife of a veteran told me that she and her husband had not had sex for five months. "That's not normal," she said, "I could count on one hand how many times this year." During my time with the association I found this common complaint vocalized by wives of veterans. Indeed, on a number of occasions, wives would joke to me about their impotent husbands. They would tell me that they were going to "spike" their husband's drinks with Viagra. On one occasion whilst staying at Rebecca's house she told me, in front of her husband, that I should not to be threatened or worried about him coming into my room at night because he "could not get it up."

Roughly 15 per cent of my informants include "low libido" in their list of symptoms from which they suffer, far more, however, spoke about the condition. Many suggest that this had been a difficult aspect of their illness for them and for their partners. One veteran, Dave, said:

I think pride is something we have in common apart from the physical problems that I'm suffering now; psychologically it is very difficult. On a family level, one of the problems was problems with libido. People joke about it, but it's a very serious thing for one's partner. Something has decreased the amount of what we would call normal libido in a person of our own age. That can seriously affect whether you stay together. It leads to more psychological stress.

Another veteran, Sean, said,

I'm unable to have sex. I can't maintain an erection at all. Again, which didn't help my marriage.

Notions about low libido and impotency are often linked causally to NAPS tablets. Indeed, during and after the Gulf War, rumours abounded about NAPS tablets and their

effect on one's sexual desire. NAPS tablets were also referred to by their medical name Pyridostigmine bromide (PB), and it is likely that soldiers made the link with the use of bromide in military mythology. Throughout military history there have been persistent rumours that bromide was put in soldier's tea to lessen sexual desire, a myth which survives to this day. Such rumours originate from WWII where soldiers were given bromide in order to prevent masturbation (self abuse) in order to ensure a good night's sleep (Jones 2003). It could also be interpreted that this was done to channel energy and potency much like football players today abstain from sex prior to a game.

During an observed assessment at the GVMAP, the doctor discussed with a veteran the preventative measures taken in the Gulf. He asked the man about side effects from NAPS tablets and vaccinations. He told the patient that he had heard from wives that NAPS tablets had "taken away their manhood" and that he had heard similar stories about malaria tablets in WWII. The patient, in this case, replied that he had no side effects. Interestingly, I was told that the tablets caused permanent erections, but others reported they caused a lessening of sexual desire and drive.

Burning Semen Syndrome

Although there is a concern about infertility and the lack of potency of Gulf veterans' semen as well as concerns about low libido, another common complaint is that veterans' semen is extremely powerful. It is seen as toxic and dangerous, a kind of concentration of all that they were exposed. Thus, there is a contradiction contained in discussions of GWS, sexuality and semen. On the one hand semen and sexuality are impotent, on the other dangerously potent. Wives and partners complain that their veteran's semen burns them, leaving them with blisters and rashes. It is suggested that men sometimes felt it too, so that intercourse became difficult or impossible. A name has been given to this condition: Burning Semen Syndrome (BSS).

Only one of my informants directly listed BSS as a symptom, but almost all talk about the condition and refer to it as a major part of GWS. As it seems to have captured the imagination, we must ask why it is that some symptoms become and remain even if, it

would seem, the majority did not experience them. Central to this is the fact that as an anthropologist I interpret symptoms differently. Whereas for others, the “reality” of the symptoms is key, for my interpretation the most important issue is merely the fact that people talk about them. I am looking at what symptom reporting is conveying, rather than focusing on uncovering the objective truth of them. BSS, impotence, and infertility, have all become entwined with GWS narratives and become powerful markers of it and, thus, are clearly communicating something meaningful.

BSS is often described as one of the oddest and rarest conditions associated with GWS, yet many of my informants spoke about it as a central feature of the illness. Martha, a Canadian Gulf veteran emphasizes that those contacting her are mainly family members inquiring about BSS and other forms of contagion.

I've come across others, significant others who are ill and they test positive for Garth Nicholson's mycoplasma test¹. It doesn't just stop with the soldiers. Our kids are born with birth defects. Congenital defects or chemical sensitivities. It is clear there is something there. I'm sure you have heard from other veterans about burning semen. Why is it burning? Women call up asking, 'What do I do?'; 'Why is it that when my partner's semen gets on me it burns and makes a boil?' Durakovic says it's because of DU. This is not just like other wars where you got shot, you healed and you move on. Modern warfare is not like that. Our enemy is invisible now. Invisible enemy, we have invisible illnesses, and the government is trying to make us invisible. What are we leaving behind? It's not just us affected. The government is negligent about that. About the organ supply and the blood supply: we are leaving it behind (in the civilian population). [You mentioned that children are being born with birth defects and that partners are being effected. How does that happen?] Through semen and through our gear, what we brought back with us. It was covered in DU dust. Nerve gas on our equipment. Toxins have got into the semen. But I think it's mainly DU. For men the semen is toxic and contaminated. The men have pain in their testicles, prostrate problems; it's painful for them to have sex. I've heard of men who have to get up at three in the morning to have a bath because it's so painful down there. Women have menstrual difficulties; their periods are all over the place, miscarriages, birth defects, difficult pregnancies, hysterectomies. I know a woman, unfortunately she is too sick to meet with you, her breasts ooze greenish fluid.... Mainly it's the partners, the wives calling and saying that their husbands don't talk about it. 90% of the time it's the significant other- the partner, or the

¹ For a discussion of Nicholson's work see below.

daughter. It's not the soldier. They are concerned about themselves. They wonder why there are problems with sex, the burning semen, why am I feeling tired all the time? Is what he has contagious? I'm always tired; I have what he has.... Those that were to get sick are sick. Now it's more in the families.

Contained in Martha's discussion are a number of themes concerned with sexuality, contagion and legacy. At this point I will focus mainly on her discussion of semen and its contagious and toxic characteristics. Her other concerns will be discussed below. I have decided, however, to leave her narrative complete in order to reveal how these issues overlap and remain connected to one another.

Martha suggests that in her role as an advocate/ expert she is now contacted mainly by partners of veterans who are concerned about their own health. She suggests that their semen is toxic and this is most likely due to contamination by DU. The enemy is seen as invisible, getting into one's very being and affecting the core of one's body. Martha focuses on this invisibility: "Our enemy is invisible now. Invisible enemy, we have invisible illnesses, and the government is trying to make us invisible." As veterans struggle with the imperceptibility of their illness, they talk about body fluids and the observable souvenirs of their illness. Birth defects and the rashes of burning semen are this invisibility made visible. Bodies of veterans have been made poisonous and this toxicity is, in turn, contaminating others. Martha suggests that this contagion could even be implicating the average person via the blood supply and organ donation arena (see Chapter 4). For veterans something as natural as having sex with one's partner is risky and dangerous. Sex is painful and difficult: their semen venomous.

During a focus group with John and Jack, the sexual nature of the illness took a dominant role. I asked the men what symptoms were common to GWS sufferers, they listed a number of symptoms and then Jack said:

While we are on the subject of children and what sort of symptoms do you suffer, a lot of Gulf War veterans suffer from things like burning semen. A lot of them have various diseases that they are passing on to their partners: an abnormal amount of sexual diseases. Their girlfriends and wives [are]

having a lot of problems in the genital areas...burning semen and various diseases.... I know these things are happening to me. I know that these things are happening to veterans, but why they are happening? I don't know. I don't have any answers.

John continues the discussion by developing the ideas of sexual diseases and GWS:

Herpes simplex is a secondary problem that DU can cause. That's why many, many veterans after the Gulf war came down with herpes type problem and passed it on to their wives and burning semen syndrome.

Jack then adds a personal element to this discussion:

You still have it, still have the problems today. Burning semen and herpes and all that stuff. When I was with my last wife, she couldn't understand it all. At first she thought I had an affair because she came down a few times, on a few occasions with this disease. With herpes, like I say, I don't understand all this medical stuff.

John:

I mean there are other explanations for things, but you've got to...

Jack interrupts,

Like all those camels we made love to.

John:

Yeah. [They both laugh]

Reminiscent of AIDS, GWS is sexually transmitted. Herpes and other STDs are understood as being part of GWS. However, these veterans suggest that whereas they transmit these things sexually, they themselves contracted the illness without sexual contact. Again, depleted uranium is implicated in both herpes and BSS, a connection I will discuss below.

Examples of UK newspaper headlines about GWS

The only veteran who told me directly that he and his wife suffer from BSS further suggested the hostile nature of his sperm. Ed, the veteran discussed at length in Chapter Four, told me that his wife had a miscarriage in October 2000 after they had tried for a year to get pregnant. When she had the miscarriage they were told that his sperm had attacked her egg. I asked him to describe what he had said were the “strange circumstances” of the miscarriage.

Yeah, it was the chromosomes, I had double the chromosomes, I mean I think you are supposed to have 36 or 37 chromosomes for male, but I had 70 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 blated ovum. Ummm and they, I mentioned the Gulf war because I was pretty upset because I was almost 100 per cent sure that it was down to that. But they were saying, oh no it could be natural. If a woman's body is not ready for a child that will happen. But I wasn't convinced.

Ed now has a healthy child; however, he remains confused about what he saw as the odd circumstances surrounding his wife's miscarriage. Ed's semen is active and hostile, attacking what it should not: his wife's egg. It is extremely potent, a notion that extends discussions of toxicity and BSS.

Women contaminated through men

BSS represents a direct transmission from the sick veteran to his partner, but other symptoms such as fatigue, pain and confusion are also conveyed. It is unclear, however, how this may occur. A popular theory proposed by Garth Nicholson suggested an infectious agent; this is the theory mentioned in Martha's quotation above. Celebrated by veterans and their advocates, Garth and Nancy Nicolson's work is often used to explain GWS, particularly its contagious element. The biochemists became involved with GWS when their daughter, a Gulf veteran, became ill. The Nicolsons themselves had experienced episodes of symptoms, which they believed were caused by GWS contracted from their daughter. They believe that infections could be transmitted to immediate family members who subsequently display similar signs and symptoms and are often diagnosed with CFS and/or fibromyalgia. Their theory is that mycoplasmas, a type of

microorganism, had entered the bloodstream of soldiers, possibly as a result of genetically engineered Iraqi weapons or contaminants from multiple vaccines. Nicolson claims to have evidence that the HIV virus was mixed up somehow with the veterans' mycoplasma. GWS is not a unique syndrome, he argues, but is, instead, linked with CFS and FM. Furthermore, he believes it to be treatable through a course of the antibiotic doxycycline. Interestingly, although heralded by veterans, none reported having the treatment.

In addition to reporting that semen burns them, veterans' partners would often tell me that they suffered from other symptoms and, again, semen is seen as the contaminating agent. The fact that GWS implicates family members further provides a rebuttal to those who suggest that GWS is psychological. It is understood that women can be contaminated and affected physically by GWS through sexual contact with their GWS sufferer partners. As mentioned above, the contagion of men was emphasized by the female organizers of the association. When we first met, Rebecca told me almost immediately that she had had a miscarriage and had gynaecological problems. She had read an article, she said, which reported the main problem areas for women were the throat, the neck and the genitals. This had struck her because she suffered from a sore throat and gynecological problems since meeting John after the war. Orifices are seen as vulnerable; they are the regions where GWS enters.

One veteran told me he had passed on his illness both to his wife and to his stepdaughter. George told me that he had been diagnosed by the GVMAP in 1995 with the Epstein-Barr virus. This virus is commonly known as "the kissing disease" and I soon realised that George had interpreted this in terms of a sexually transmitted disease. He explained that being told of his diagnosis was "not very pleasant." He further said that the doctor had told him that he would have to "tell his missus" and that it was very difficult having to tell her. George said that his wife is now suffering from it as well as CFS. His stepdaughter, he informed me, had been diagnosed with CFS and that he understood that she had contracted it from him. I asked George how he thinks his family could have contracted the illness:

With the wife, some of it was sexual contact. Well, she has to go to the hospital for an appointment later on this month for vaginal infections. And the others, the ME, you know, chronic fatigue and that it's obviously airborne.

I asked George how he had made the link between his stepdaughter's illness and the Gulf. He suggested that this had come about in 1994, "once I sort of realised I was ill, and I'd been in touch with the Nicholsons and they sort of said that there is a family connection, and things just fell into place." Women are infected with their partner's illness through contact with their semen and, in some cases, by mere proximity to the contaminated man. In these narratives, sex and death take center stage. The two most powerful notions and their symbolism are reversed: blood and semen are no longer the sources of life, but, instead, sources of illness and death (for a similar discussion about AIDS see Wallman 1988).

Birth defects: children contaminated through men

The most alarmist and upsetting media reports and stories about GWS have been about birth defects. Immediately after the war there were persistent rumours of birth defects and increased rates of miscarriages among the families of returning veterans. Problems in reproduction take a predominant role in discussions of GWS and, indeed, are often the most discussed outcome of the war in the public arena. Once again it is semen that is implicated. Conception is seen as risky and full of potential problems and when conception does result in a child, veterans believe that birth defects are likely. At this point, however, it must be noted that although this belief is widespread in both veteran circles and the general population, there is no evidence that Gulf veterans have children with excess birth defects (Cowan et al 1997; Araneta et al 2000). Doyle et al (2004) found no evidence for a link between paternal deployment to the Gulf War and increased risk of stillbirth, chromosomal malformations, or congenital syndromes. Associations were found between fathers' service in the Gulf War and increased risk of miscarriage and less well-defined malformations. However, the authors suggest that these findings need to be interpreted with caution, as such outcomes are susceptible to recall bias. There was

no evidence of an association between risk of miscarriage and mothers' service in the Gulf. Although two out of four reproductive health studies evaluated by the MRC review "showed an increased incidence of self-reported birth defects among Gulf veterans, their independent measures of birth defects found no association with Gulf service or reported exposure to particular hazards" (MRC 2003:4). It must be remembered that 1 out of 40, or 5 per cent of births result in birth defects and miscarriages rates are much higher than is commonly known. Despite evidence to the contrary, veterans remain convinced of the prevalence of birth defects and other problems in reproduction; thus, this belief remains a central tenet of GWS.

An American GWS baby with his Gulf veteran father

Many veterans would tell me that there are high numbers of birth defects in children born to Gulf veterans. When I asked them how many they had met or knew of personally they would invariably say that they did not know of any personally, but had read about them or heard about them. The children of two veterans, Mark and Harry, are often cited as "proof" of the increased rates of birth defects. The following conversation with Paul is illustrative of this use of one or two cases as evidence of an overall occurrence. I asked Paul if he knew of any children born to Gulf veterans who had birth defects,

Yes, a lot. I know personally there's one. Harry, his son has brain damage. Other people have kids with deformed fingers and feet.² Webbed fingers and feet, autism, memory problems, behaviour problems, and problems with their joints. [How is passed on?] I think it's altered the reproduction systems. In the semen so it can carry. The Americans have had the same problems as well with deformities. They have the same problems as their parents. I think it's some sort of cells, some sort of way that's been passed on. Through blood, cells, semen or whatever has been passed on.

During our first meeting, Rebecca told me that men were twice as likely to have children with defects and women veterans were three times more likely. To illustrate this claim, Rebecca told me about a family where the father was ill with GWS and the four children had also been affected. This was Mark's family, introduced in Chapter Two. Debbie and Mark were very well known and had appeared many times in media reports. They were the "face" of GWS birth defects and have appeared in numerous media reports about GWS and its relationship with birth defects. It is possible that because of the high profile of these two families, veterans and others read the numerous stories in the media and interpret them as multiple stories. The information has the effect of multiplying the event. It would seem that people are creating theories out of the anecdotal evidence about a few cases.

When I first spoke to Debbie on the phone she told me that the children all have problems, but the eldest has the most serious disabilities. She said all of the children have deformed feet, asthma and bowel problems. The eldest, Michael, has language delay, deformed ears and feet, chronic fatigue, problems with food, and they were now investigating whether or not he has autism. When I met the family I was surprised to see that there appeared to be no signs of deformities in the children. When I inquired about this Debbie pointed out Michael's ears, which seemed mildly misshapen. She then pulled off the shoes and socks of the children to point out their "deformed" feet and toes. The children's feet appeared normal; the last toes were, however, slightly overlapped with the toe beside it. Debbie told me that the children's deformities were the same as those

² Although Paul did not directly suggest that he was speaking of Mark and Debbie's children, the common description in media reports and amongst GWS circles is that they have deformed fingers and toes.

which were appearing in children in Iraq and that is how she knew it was something to do with the Gulf.

Debbie explained that their doctor had told them that he had never seen anything like Michael's ears before, but he had told them that the problems with their toes were common. Debbie suggested, however, that to have both deformed ears and toes at the same time made it uncommon. Thus, to have one of the symptoms in isolation would have been acceptable, but it is the combination of symptoms that made it an issue. Debbie told me that the children have various and differing symptoms, but all the children have stomach and bowel problems.

I asked Debbie about what she thought had happened to her children, as she clearly thought they had birth defects. She said: "It must be something to do with the Gulf. No one else has four kids that are ill." Her husband, Mark added, "I can accept having one child having problems, two maybe, but having four kids who are ill?" I then asked them if they knew other, non-veterans, who had children with birth defects. "One has a language delay," Debbie said,

But Michael has that and physical problems. If it had just been the language delay I would not have associated it with the Gulf, but because language delay and toes etc and there is no history in the family of these things.

When I asked Debbie what she thought might have caused these problems in other families she said that she thought it must be down to family history. She said that genetics is the key to these things and that they had had Michael tested to see if he had the "gene which causes language delay in boys," but Debbie did not have the gene. Mark, the father, was not tested.

I later spoke to Mark's parents, the children's grandparents. They said that they felt having four children in the same family with problems was "too much of a coincidence" and that they had 14 grandchildren in total and none of the others had problems. They suggested that "should mean something" and further indicated that, "something,

somewhere would have shown up.” The grandmother said that she was also part of a big family and none of them have any problems and, thus, it “surely must be something to do with the Gulf.” It is as though family history, genetics is the explanation people turn to in order to make sense of illness. When there is not sufficient evidence of this, the Gulf is automatically implicated.

Semen is understood to play the central role in birth defects. Again, semen, seen as the physical essence of masculinity, is seen as playing a chief role in contagion. During my interviews I would ask veterans if they thought the illness could be passed on to others. If they felt it could, which the majority of them did, I would ask how this might occur. Most veterans express uncertainty about the exact nature of this transmission, but commonly suggest that it is something carried in semen. Sean’s discussion below is representative of the kind of answers I received to the question of how transmission occurred.

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. [So do you think possible the exposures affected your genes?] 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 your 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?

Semen is seen as containing the essence of the body and the man. Sperm, according to Sean, has “blood and everything in it,” it contains the nature of the man in minute form. Another veteran, Sara, expresses similar understanding of the role of semen in the transmission of the disease to children:

If something that’s affected the nervous system and it’s because of a drug or something, if they haven’t been tested properly. These are lying maybe dormant or it’s in your system you pass on to your children. Like a man who’s a drug addict can pass on to a child. Or somebody with HIV can pass it on to a child. No one has said it’s not like that. If you have GWS... if it’s because of uranium, that’s for life, not just for Christmas. If you

father a child and there's uranium in your semen then the child is going to have it.

Sara³ suggests that her concerns about having “damaged” children were one reason why she and her husband had decided not to have children. She is concerned by the media reports of children with “problems with their kidneys and brain problems” being born to GW veterans. Male veterans, however, are the ones who seem to be implicated in the illnesses of their children, according to Sara. She said that in the

paper and on TV it's always been the father of the child announcing ‘I was in the Gulf.’ ... I haven't heard of or seen of any women who say ‘my baby was born deaf because I was in the Gulf.’ But there is a tiny nagging doubt, one percent, saying what if? You know, it's there.

Although Sara thinks that children born to Gulf veterans after the war may be at risk from illness, she does not think that it is contagious.

It's not something like, don't sit in the room with him: he's got GWS. It's not HIV or AIDS or Ebola virus or something stupid like that that you can catch.

Interestingly, she does think it could be transmitted if it were a psychological or psychosomatic illness. This notion of the “contagion” of illnesses such as depression was repeated on numerous occasions by well Gulf veterans in their attempt to understand GWS.

Amongst well Gulf veterans the possibility of having children with birth defects seems to be an overriding concern. Thus, although they remain symptom free and healthy, there was a concern that something remained in their body that could affect their children. James, a well Gulf veteran:

I can only be guided by the evidence. 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

³ Sara suffers from migraines which she believes are attributed to her service in the Gulf, but otherwise considers herself well.

blame it on the Gulf. [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. [...] If it were a small heart defect I wouldn't blame it on the Gulf. I know these things happen. But Down's syndrome, I would blame on the Gulf. [Why? Do you not think that sometimes children are just born with Down's syndrome?] It is easy to say that anyone could have a Down's baby but I would find that hard to take.

During a follow-up interview I asked James to expand on what he had told me during our first meeting.

If I got cancer I would not blame it on Gulf. It would have to 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. It must be something because I wasn't infertile before GW. So it would point to the Gulf. But if they said 50 per cent of over 40s, and I am 40, become infertile I would believe it. I would not say it was GWS if I got cancer because that happens.

James' comments are common amongst non-sufferers and the general public. It is as though there are some situations which demand explanation and blame, and having a child with a birth defect is one such predicament.

The way the friendly fire incidents informed veterans' understanding of their illness was discussed in Chapter Five. Friendly fire metaphors are also used to describe the contamination of women and children through their contact with men who fought in the Gulf (remember Ed's report of his sperm attacking his wife's egg). Lee suggests,

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 programme. 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. So I went for the test [GVMAP] in 1997. Came out feeling like a male rape victim. They didn't believe a single thing I felt. My dad was in

the RAMC⁴, so I had faith in the army medical service. I told him that I had taken BATS⁵ and NAPS. And he said don't be so silly, nobody took BATS. 650 of my regiment took BATS. He accused me of being a liar. He was asking questions but not listening. If I was raped that is how I would expect to feel.

Lee explicitly states that birth defects in children as a result of exposures in the Gulf are "like friendly fire." He further explains his experience of going to the GVMAP as a kind of rape. The sexualized nature of his explanation is characteristic of veterans' discussions. Likening the situation to rape is possibly his way of expressing a feeling of being feminized.

In the same focus group mentioned above, John and Jack also discuss BSS and issues of contagion. They then turn to the impact on the Iraqi people as well as on their own family members:

John: We've committed genocide against the people of Iraq. But ah, history will right that.

Jack: There is a big hoo-ha about Chernobyl but there hasn't been a hoo-ha about all these people being deformed in Iraq. And indeed, to UK veterans.

...

John: Harry, who you saw today, both Jade and her brother Thomas, Thomas has severe brain damage. Jade has hearing and speech impediment and learning difficulties. Now you think about Mark's children all four of them. Harry, both of his, Mark's children.⁶ Now, Mark's job was to remove the vehicles that were hit as a tank transporter. So he was undoubtedly exposed. Harry was a chef, so his regiment broke through and camped right in the middle, so he would have been jumping on tanks like the rest of them. They shouldn't have done it. They should have restricted the movement of troops after the war

Jack: You've got many, many, many cases where wives and female veterans have actually lost children.

⁴ Royal Army Medical Corps

⁵ Biological Agent Treatment Set. Preventative medication issued in the event of an attack by a biological weapon. Although it has been widely stated that no UK troops took BATS, a few veterans claim to have taken them.

⁶ Again, the use of these two families is used as proof of the link between GWS and birth defects.

John: Yes, I mean, Rebecca and I lost a baby. But that's not the only occurrence. Some of the children born to veterans have been horrifically deformed. Which has been recently brought out by a paper in America...[which] looks at health defects of children born to veterans in the Gulf and shows substantial birth defects in veterans children. And admittedly that group of soldiers would have been more exposed to DU anyway. But that's not the argument. The argument is that we've done it to ourselves.

John stresses the fact that “we've done it to ourselves”, it is their own government implicated in their illness and the illnesses of their children. In this case, John is specifically talking about depleted uranium. In the above quotation, John also discusses the effect of the war on the Iraqi people, particularly Iraqi children. Veterans say that the birth defects found in their children are the same as those found amongst Iraqi children born after the war. When veterans discuss birth defects they most often discuss them in relation to semen made toxic by way of exposure to depleted uranium. The anxiety surrounding depleted uranium could be seen as rising out of a belief that it is a radioactive substance. It was a new weapon and, thus, mysterious to many soldiers who were not familiar with it. Discussions of DU and its relationship with birth defects are reminiscent of the post-Vietnam War anxiety about Agent Orange. Agent Orange was implicated in horrific birth defects in children born to Vietnam veterans and Vietnamese children. Fears about the effects of Agent Orange occurred during a more widespread anxiety about invisible chemicals and toxins. During this period there was widespread fear about DDT which was thought to enter the food chain through plants and would, in turn, contaminate children. One of the most influential books of this period was *Silent Spring* (1962). In it, Carson, a biologist and writer suggested that pesticide sprays were “a kind of fallout.” She stated, “in this now universal contamination of the environment, chemicals are the sinister and little recognized partners of radiation in changing the very nature of the world- the very nature of life” (Carson in Wheelwright 1002:177). Despite the widespread belief in the connection between Agent Orange and illnesses, including birth defects, the link has not been proven.

In a number of cases veterans extend discussions of exposure to DU. As mentioned in Chapter Two, exposure to DU, according to veterans, can occur indirectly. Veterans report that many of them brought back souvenirs of the war: visual reminders and proof of their participation in war. On a number of occasions veterans would suggest that these visible totems were implicated in the illnesses of family members and other innocent victims. One veteran, Brian, suggested, “we all have souvenirs. I have shells in the house and my kids have all these symptoms.” He said that he had four shells that he displayed in his house and that his children had become ill as a result.

Rebecca told me a theory about birth defects that I would hear repeated on a number of occasions. Within the first three years after the Gulf War, health problems were indiscriminant in regards to a baby’s sex. Rebecca suggested that both male babies and female babies had birth defects and subsequent problems. The situation since 1997, she argued, was different in that only male children were at risk. Thus, Rebecca suggests that in the early years after the Gulf War all children were likely to be affected by their father’s participation in the Gulf. Now, only male children are born with birth defects due to GWS. As mentioned previously, I was told that Rebecca had had a miscarriage, but she had since given birth to a healthy girl. I asked Rebecca during our time together if she was worried about having children because of John’s GWS. She told me that she had been to some extent, but overcame this by thinking that it might be a girl. Rebecca also suggested that she knew if there was something wrong with the child she could choose to abort the fetus, as she “knew she couldn’t cope if the child had problems”. She told me she had a “good gene family” and that once she knew it was a girl she knew the child would be fine because it was mainly the boys who had problems.⁷

The notion that contagion is passed down through the male line was further described by Harry. Harry has two children, Jade and Thomas. I was told that Thomas has brain damage and, as Harry describes, “the right hand side of his brain isn’t formed properly so

⁷ It is possible that this theory (which I only heard mentioned by well-known association members) resulted out of the recognition that a number of well-known ill veterans had had healthy children, after media reports of birth defects. The two leaders of the association had had healthy children, both of whom were girls.

he has learning difficulties and behavioural problems.” Thomas’ problems were further described by Harry:

When he was one we found his speech was not OK. It was a long struggle. They gave him a brain scan and they found that his right hand side is inside out.

Harry told me that Jade was fine. I found this interesting, as John had suggested that both children had birth defects (see above).

Below Harry describes how he understands his son’s illness is related to his participation in the Gulf:

As I say my son, Thomas, has got brain damage [seen on] an early CT scan and... 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... I think that as I’ve had that many vaccinations and that my immune system, my immune system has been messed up, really like. And 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 male children were affected, but female children were not. He replied:

The theory is that it’s the X gene [sic] 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.

Harry’s discussion contains a number of different factors illustrative of illness models of GWS. He suggests that those children, such as Thomas, who were born soon after the war were more at risk than those who were born more recently, like Jade. Thomas is a “Gulf baby,” defined by his father’s participation in the Gulf. Veterans’ bodies, immediately after the Gulf are more potent and hazardous and randomly affect their

offspring. At first it would appear that in time veterans' bodies become less toxic, as those children born more recently are seen less likely to be affected. Upon closer inspection, however, this is not the case. Instead, this theory suggests that the illness becomes concentrated in maleness. Men pass on maleness and masculinity to their male children and, thus, it is only male children that have the possibility of being damaged.

THE SOLDIER'S BODY: THE EMBODIMENT OF MASCULINITY

GWS affected the very core of sufferers' masculinity. Indeed, it is through their masculinity that their wives, partners, and offspring are affected. Veterans impart a strong notion of masculinity in their discussions and these were deeply rooted in the body. Masculinity is almost always thought to proceed from men's bodies: to be inherent in a male body or to express something about a male body (Connell 1995). The ideal and normal state is one of ultimate fitness; a state stressed in the military and any deviation from the muscular, fit body is seen as illness. Masculinity and their identity as a soldier were dependent upon their body and its ability to perform. This notion of masculinity is linked with strength and fitness both externally and internally. We can see these notions linked with the previous discussion of body boundaries and the immune system. Strong, masculine bodies have strong, adapting immune systems and impenetrable defensive barriers.

One cannot stress enough the role of the military in defining masculinity. The forces are a masculinizing institution and the organizational culture of armies is heavily gendered. Indeed, the military can be seen as the embodiment of a sexualized masculine ethic (Littlewood 2002). The body of the soldier can be seen as a kind of exemplary masculinity. As Connell (1995:213) suggests, violence "on the largest possible scale is the purpose of the military; and no arena has been more important for the definition of hegemonic masculinity in European/ American culture.... The figure of the hero is central to the Western cultural imagery of the masculine". The production of exemplary masculinities, like the soldier, is integral to the politics of hegemonic masculinities (Connell 1995). This symbolism of masculinity, however, is not fixed.

I was told that in the military the body is seen as a tool or as a weapon. Nigel, a well veteran, who was concerned about colleagues who he felt were suffering from GWS, but were ashamed to come forward discussed at length the view of the body in military culture:

It was a strange culture, for example, if you were overweight, even if you are not overweight, I was a big lad and I used to have pie jokes thrown at me all the time and yet I never failed any test physically. I had a friend who passed SAS selection, came back to get his kit, and he was a little chubby lad and he was having jokes about being in the special pie squad from blokes who weren't half as fit as him. There were also racial things and ginger haired things. It's a very critical culture. It criticizes everything in, I suppose, quite a bitchy way. And the body is part of that. Your physical and mental health has to be without blemish.... The worst thing to be known is to have not passed the BFT⁸. If you failed the physical test... [you could be] classed as a wanker.

Whilst explaining the culture of the military, Nigel talks about the way it is very focused on the body. Nigel's language is highly gendered and sexualized: he describes the culture as "bitchy" and that people who failed tests would be called "wankers". Being unfit or even looking unfit attracted ridicule. As he suggests, the "worst thing" is to fail the basic fitness test. Thus, one's integrity and masculinity is dependent upon easily observed fitness. Interestingly, the notion of "fitness" has been increasingly linked to attractiveness: to be an attractive man you must also be physically fit.⁹

Notions of masculinity are also linked with an absence of weakness and emotions. Indeed, it was very hard for veterans, they said, to approach people about their illness because soldiers do not go to the doctor or admit they are ill. I was told by both ill and well veterans that, "illness is seen as a bad thing in the army" and that "to report sick is taken as a form of weakness." This inability to accept illness is said to be a "male thing" and common in the military ethos. Henry, a high-ranking officer, emphasized the role of

⁸ Basic Fitness Test. This test is the fundamental measure of fitness in the forces and must be passed by all recruits before they are accepted into the forces. All soldiers must also pass this test yearly.

⁹ I owe this insight to Professor Danny Miller.

masculinity in service culture and the impact it has on the acceptance of psychological problems.

If you're a man (most are men and those are the ones I worked with for 34 years) and your manhood, your masculinity, your strength and your invulnerability are cornerstones of your placement in society. Whoever you are. And certainly if you strap military uniform on for many years, it's how we condition them. So we're all vulnerable to it... I'm not a babe in arms, I think I would have been mortified to be diagnosed with PTSD... Mortified. Because, again, either I think a lot of my self-esteem was based on the fact that I coped awfully well with combat. And enjoyed it and I enjoyed inspiring and leading through it. If that had been a part of the conclusion [of what was wrong with me] I'd have been gutted, I really would. So I think you can take shades of that right through the spectrum. 'I'm one of the body, I can hack anything.' When you come home, 'you haven't been able to cope with stress.' 'What!' it unnerves them and it destabilizes them itself.

GWS BODIES: DISAPPEARING MASCULINITY

Veterans valorized their pre-war identity and bodies describing extreme masculinity and strength. Ben explains,

Before I went to the Gulf, as I said I was superfit... You are superman.

When veterans discuss their illness and their present state they say that they are deteriorating, old before their time and weak. This weak state is held as a foil to their pre-war bodies and selves. Another veteran, Sean, says:

I really don't know what to think. But I definitely know I'm not well. I've always been a very fit, very active person. I used to do my training three times a day. Morning, noon and night, everyday, without fail. I was one of the fittest people.... Now I can't do bugger all, basically. I can't even lift weights anymore because it causes pain in my neck and my neck goes into spasm.... I've had to lose a lot of bulk through inactivity¹⁰. And again, when you don't exercise and you don't release endorphins so it doesn't help the depression side. I know I'm not as tolerant as I was with people and things.... [A]t first I was paranoid because I thought I'm falling to pieces here, why? I've gone from a person, I liked me; I was full

¹⁰ Sean is suggesting that he had to lose a lot of muscle through not being able to exercise and lift weights; changing the appearance of his body.

of myself because I can do the things I can do. I was proud of my body, I was proud of my athletic prowess. I was proud of the fact that people didn't tell me what to do and I could hold my own in any argument: mentally and physically. And then all of a sudden I started despising myself because I was like an old cripple. My mind wasn't working right, my body wasn't working right, and I was turning into an old man. I felt I was dying from the inside. It wasn't affecting me, it was affecting everybody. My family and friends.

Masculinity is also linked with work and the job of a soldier. Being a man is also about providing for one's family. Previously, Harry described his understanding of how his male child was affected by his participation in the Gulf through his semen. After this discussion I asked Harry to describe to me how he felt physically. He replied:

Nowadays, I just feel, I don't feel how I used to be. I could manage things better. I can't work although I keep trying, like. I get tired easily. And it's role reversal at home. My wife works now and I'm doing the chores and that takes some getting used to, like. Because generally with all these health problems my skin, my sleep apnoea and my asthma and all these things wrong with me and that's how I am these days, a bit of a worrier, like. I think it's the fear of the unknown that's the worse thing, like.... I've had to change my lifestyle. I'm a househusband and that. It takes some getting used to but you have to know your limitations. And I know my limitations I can't do DIY and that.... I have to admit that at first I felt a bit inadequate. But then I thought to myself, and I've had counselling... that having a home and family is important in itself, like. And I've learned through these counselling sessions that if my wife was ill and I was working it wouldn't be a problems... you've just got to adapt to what's best for you.

Harry's comments reflect the view that men are seen as the "breadwinners." In the army their body was their means of survival, in the absence of the army what role does their body play? Is it redundant? Through their illness, or prior to their illness through leaving the forces, this expression of masculinity was taken away from them. Masculinity is linked to work. Most of the Gulf War sufferers I spoke to did not work and depended on the pensions and benefits they received as a result of being an ill veteran. Many of their female partners worked and ran the home. In their discussions about their illness, veterans stressed their inability to work and that their partners saw "a fit man becoming

ill and losing jobs.” Thus, they had gone from having a heightened male identity: being a soldier, a war veteran, and a worker to being what Harry refers to as a “househusband.”

Veterans themselves and their advocates paint very emotive pictures of their bodies. During the US congressional hearing at the House of Lords, the comparison of pre-war masculinity and fitness to post-war was the focus of the presentations. A US Congressman said:

They were exposed to a host of toxins. They were vibrant, potent, strong and came back broken, battered and suffering. They came back with old women’s diseases. Diseases of the old. The plight is real and it is physical.¹¹

Ross Perot then said of the Gulf veterans that he had seen:

They were Captain America. They brought in pictures of themselves. They were muscle men and now they looked like people coming out of Dachau in WWII. And brought pictures of their children with severe birth defects. I am not a doctor. I have been accused of being one but I can see this is not stress. This is about how we can protect our armed forces and our entire population from terrorist activity.¹²

Veterans’ bodies are described as once masculine and ideal: “Captain America”. This masculine ideal of fitness and strength is now lacking in their bodies: they are old, weak and in need of help. They were “potent,” they are now dependent and “broken”. Once again we can see the way that discussions about GWS are, in many ways, not really about the Gulf War. Instead, it is a vehicle for talking about other things, in this case a platform for US politicians to discuss terrorism and widespread vulnerability. GWS expands outwards (see Chapter 9) it brings together disparate anxieties of our contemporary context.

¹¹ This is not a direct quote as it is based on notes I took during the meeting.

¹² Also not direct quote as not taped interview.

Many veterans report that they found the final period of their time in the forces difficult because they were unable to maintain fitness levels, the cornerstone of masculinity in the forces. Thus, their bodies were failing them and not living up to the ideal male soldierly body. Linked to this inability to cope is the notion of fatigue. As mentioned above, the military body is one that is strong and has endurance, it does not tire; yet GWS sufferers most common complaint is fatigue, their bodies are in a constant state of lassitude. Such a notion of fatigue seems entwined with notions of aging, weakening and losing potency. In the forces fatigue is seen as entirely negative and is given feminine connotations. This is made all the more symbolic with the entrance of women into the forces and the subsequent advent of different criteria of endurance for female soldiers, something that will be discussed in the next chapter.

“OLD WOMEN’S DISEASES”

As we have seen above, GWS narratives emphasize the toxicity of semen and in many ways, the toxicity of manhood itself. The men talk about being transformed, changed by their time in the Gulf. This change, however, is seen almost entirely in physical terms. This change subsequently infects and harms their wives, lovers and children. They are fractured heroes, broken men and the essence of being a man- the penis and their semen- is equally damaged. This transformation of male identity and personhood is further expanded by veterans’ discussions of the illnesses from which they suffer. Veterans and their advocates constantly told me that they suffer from “old people’s diseases” and “old women’s diseases.”

They suffer diseases of women, further emphasizing their de-masculisation. This description of their bodies is held in stark contrast to the way they describe their pre-war bodies as muscular, fit, and strong. During an early interview, Rebecca told me that veterans’ bodies “just don’t work well”. She said they are either too fat or too skinny because their bodies do not work properly. She also said that there are higher rates of anorexia in male veterans, “which is just not common normally”. Rebecca then used a well-known veteran to illustrate what she was saying, thus, the male bodies of veterans are not ideal masculine bodies.

Malcolm Hooper would often stress the fact that veterans' illnesses are "female" illnesses.

This is a disease mainly of women [Irritable Bowel Syndrome] and many things in Gulf cases are found which are mainly of women. Lupus, fibromyalgia, osteoporosis.¹³

Veterans themselves point out the link between their conditions and female maladies. Describing fibromyalgia, one of his many symptoms, Mark said:

It is tenderness around the joints. It's more predominant in women than men until Gulf vets. It's rarely found in men or only in men who are older with really thick notes [i.e. with a complicated medical history].

Tony, the skeptical veteran described in the previous chapter, discusses his experience of going to the AGM:

The guys with osteoporosis, that got to me a bit. Because that's an old woman's disease, sitting around too much. But these guys are active, young men and they are crippled by an old woman's disease. And that did disturb me. But as I say, I was more caught up in the euphoria of being there, rather than being convinced that I was one of them.

Paul, who walks with a walking stick, told me that he uses a walking stick because of his fibromyalgia and the pain it causes:

[I] was just diagnosed with osteo-arthritis just two months ago and with bones sticking out. I know people who were younger. I'm only 38. I know men as young as 25 have been diagnosed with osteoporosis which is brittle bones which is a lady's thing. Or you get it later in life. Or they are old people who were boxers.

Veterans often say that their illnesses are rare, or that to have the combination of various things is unusual. They also stress that when they do get known and common illnesses

¹³ Not direct quote as based on notes during a meeting.

they get them at a younger age than normal. Chris, for example, diagnosed with MS, tries to make sense of this illness:

How come all of us at the age of 52 and 53? To get MS is most rare indeed, they say. Then period of mood swings. Fine one minute, raging temper next, loss of balance.... Asked to go for an interview and put me into body scan and requested my wife and I to attend to be told we've diagnosed with MS. They said it was very unusual in men of your age and in white people. It's usually in women, younger people and that's where we started. I had been developing over a couple of years.... Yes, became impotent and I would bite my wife's head off. It is a build up of various things. At least they have given it a name. Whether it is MS... My opinion when I went to the MAP. Professor Lee, he told me that pregnant women have greater exposure to the chemicals, so why would it affect you?¹⁴ I thought, 'thank you very much.'

Chris reveals that he believes that his MS is rare because he is older, white, and male. As he does not fit the criteria of those who normally are diagnosed with MS, he thinks that his illness is not “natural” and, thus, must be due to some unusual factor: the Gulf War. He repeatedly referred to his illness as “so-called MS” as though it was not true MS, but GWS which presented like MS. During my fieldwork there was increased interest in Motor-Neuron Disease (MND) and its relation to GWS. This was a result of the US accepting MND as related to service in the Gulf and one very public case of MND in the UK. Time and again I was told that MND was prevalent in GW veterans and that it was an “old person’s disease.”

We can see that veterans interpret the illnesses from which they suffer as disorders of women and the old. In describing their illnesses as such veterans are describing their bodies as deteriorating and un-ideal. During a casual discussion with John and Rebecca, John told me that all Gulf War sufferers have fibromyalgia and osteoporosis and that these are “women’s diseases.” Rebecca then said

¹⁴ My interpretation of what Barry is reporting here arises out of my time observing assessments at the MAP. When the doctor explained NAPS tablets to veterans, he always showed them the description of PB in the drugs manual. He would point out that they were given far less than one is able to give those suffering from MG. He would also explain that the drug is so harmless that women who are pregnant are advised to continue taking the medication throughout their pregnancy. I think this is what Barry is referring to.

I think they are all turning into women. It's doing something to the male gene and the men pass on their male gene.

This comment was vividly illustrated by Bob (see transcript at the beginning of this chapter) when he described what he called his “bitch tits.” Bob sees his body as transforming and gaining female attributes.

WOMEN

In this chapter I focused on men and masculinity, only discussing women in their relations to men. But what of those women who themselves were in the war? During my fieldwork I had eight female veteran informants, five of whom believed they were suffering from GWS. Their stories are remarkably similar to the men's narratives of GWS. Female sufferers focus on the centrality of fitness and the way their illness was an absence of this. They describe their pre-war/ pre-illness bodies as those in a state of extreme fitness and described feeling old before their time and weak and illustrated this in terms of lack of fitness, as did the men. The symptoms are generally the same. My findings reflect those of Unwin et al (2002) who found that women had similar rates of ill health as men and for the majority of symptoms there were no gender differences.

In discussions of masculinity and military culture we cannot ignore women or set them aside. Masculinity is a social construct and, thus, women can be considered as embodying masculine ideals as much as men. Women who join the military could be seen as likely to embrace dominant notions of masculinity. Women themselves can also be seen to eschew dominant notions of femininity, by adopting and valorising masculine mannerisms, behaviour and dress in their attempt to “make it” in a hegemonically masculine environment (Agostino 1997).

There were issues which directly related to women soldiers. I was told that women were put on the birth control pill so that they would not get periods in their suits. I was also told on one occasion, by a well woman veteran, that she understood that they did this so that any women that were captured would not produce a child as a result of rape. Female

and male veterans reported that the side effects women experienced as a result of the preventative measures taken involved disruption to their periods. Some told me that women's periods stopped or "went haywire".

George describes what he heard were the effects of NAPS tablets:

Well, good example, to show you how the NAPS tablets are, in my unit out in the Gulf, 205 general hospital, umm one of their nurses, you can appreciate this more than I can. After we'd been out there just over two months or so and taken the NAPS tablets, she was told by the doctors out there to stop taking them because she had her period for a solid two months. After loads and loads of tests, that's what they boiled it down to. Obviously, as a woman, you can appreciate that that's not very nice [laughs] and all the time we was out there we were having side-effects from the NAPS anyway; mainly diarrhoea.

Rumours also abounded about the effect of exposures on reproduction. One well woman veteran told me that the woman with whom she had shared a tent in the Gulf had been advised not to have children for at least one year. None of the women soldiers I interviewed had had children after the war nor reported problems with reproduction. Interestingly, all the ill female veterans I met were single: two were divorced and three remained single.

CONCLUSIONS

As we have seen in Chapter Four, for veterans there is anxiety about substances that transverse the boundaries of the body and semen is the most profound of these. During my fieldwork I was struck by how central issues of semen and reproduction were to veterans' discussions. I became convinced that there was something important being conveyed. Why semen? Why do they talk about it so much? Semen breaks body boundaries to the extreme. Semen has potential. It is what makes you a man and you are able to transfer that to others.

When a society is under threat it is often women's bodies, and predominantly orifices, that are seen as vulnerable and in need of protection (Boddy 1989). Anxiety about semen

suggests that men's bodies also map vulnerabilities of society. Concerns about lack of potency, toxicity, and quality suggest that semen itself is a substance in which social concerns are enacted. As Douglas suggests, the fluids of the body turn out to be a kind of language in which various themes find their voice (1966). Anxiety about semen is not unique to GWS and has been investigated by anthropologists. Jadhav (2004), for example, describes the pervasiveness of *dhat* syndrome in the Indian context. Dhat syndrome involves the preoccupation with loss of semen; there is a fear that semen is being lost, and mixed in urine. Seen most frequently amongst young men presenting at medical and psychiatric clinics in South Asian countries, the common symptoms of the condition include fatigue, weakness, palpitations and sleeplessness (Jadhav 2004). The author argues against a reading of dhat as culturally bound because there is sufficient evidence to confirm concerns over losing or retaining semen prevailed in Euro-American societies. Jadhav points out that both Galen and Aristotle drew attention to semen as a 'soul substance' and outlined the debilitating consequence of semen loss. Furthermore, Jadhav's work suggests that there may be a link between depression and anxiety about semen loss. Narratives of GWS focus on semen and an ambivalence about the potency of this substance. On the one hand their semen is seen as impotent, characterized by low libido and infertility, yet on the other hand discussions of burning semen syndrome and birth defects suggest their semen is overtly potent, destructive and often hostile. This ties in with their descriptions of being violent, irritable and aggressive.

The military could be seen as the embodiment of masculinity- a masculinity under threat, however, as will be discussed in the next chapter. Soldiers can be seen as the ideal, exemplary male. The military moulds them through constant exercise, hair cuts, and uniforms to become the picture of masculinity.¹⁵ Semen is often seen as the seat of selfhood: the location of the self in biological form. It is not surprising that in a culture such as the military, which characterizes itself as ultimately masculine, that semen would be seen as central to notions of identity. I would suggest that when veterans are discussing their damaged bodies and their damaged semen they are, in fact, embodying

¹⁵ US marines, the pinnacle of military masculinity focus on creating bulk and muscle. Such a physique is not a requirement for their job. Indeed, it may be to their detriment as it impedes speed and endurance. However, the process of maintaining a body builder body is part of the image of the US marine.

their damaged masculinity. When veterans discuss lack of libido and impotency they are talking about a lack of potency and a lack of the sexual force of masculinity. Indeed, the very word impotency is a synonym for emasculation. Masculinity is integrally linked to sex and the ejaculation of semen, as we have seen above; yet veterans express an inability to embody this masculine emblem. In contrast, they also suffer from a toxic and potent masculinity. They themselves are toxic. When veterans talk about the fact that only male children are now affected, they seem to be suggesting that maleness is transmitted biologically. Since their masculinity is somehow marred, veterans have damaged male children. Masculinity is the social elaboration of the biological function of fatherhood (Connell 1995) and again they come up lacking. Anxiety about impotency and potency of semen does not seem to be isolated to discussions of GWS, but instead, can be seen as characteristic of a cultural process (Redclift and Shand 2003). GWS, however, uniquely concentrates this issue of loss of masculinity.

CHAPTER 8 IMPOTENT WARRIORS: THE CONTEXT OF NARRATIVES OF LOST MASCULINITY

The context and causes of GWS must be seen as wider than the Gulf War, as many other things were happening in the lives of these men and GWS was their way of making their various experiences intelligible. GWS shares certain features with other new illnesses, but it arises out of anxieties particularly relevant to a specific group of people: the package for these men (and women) is unique. GWS responded to, addressed and commented upon issues relevant to the specific things that were going on economically, physically and culturally in the lives of these men. In this chapter I will provide an account of the context of GWS mainly through analysis of literature considering the war itself, militaries more generally, and the relationship of these to masculinity. This examination of the context will, I hope, shed light on the narratives discussed in the previous two chapters. In this chapter I extend my interpretation, developed in the previous chapter, that GWS is, in part, an expression of gender anxiety in the face of a changing military.

As we have seen, two of the unique aspects of GWS are its contagious nature and its focus on the loss of masculinity. GWS is believed to be passed on to partners via sexual contact and transmitted to others through different means. GWS narratives emphasize the toxicity of semen and in many ways, the toxicity of manhood itself. Veterans, through their time in the Gulf, are altered and damaged and through their bodies they infect their wives, lovers and children. They are broken men, impotent warriors. The essence of being a man- their penis and their semen- are defective. Their bodies have transformed from the epitome of militarized masculinity to embodying a lack of virility and manliness.

MILITARY MASCULINITY

The military is populated with men and plays a primary role in shaping images of masculinity in the larger society (Connell 1992; Morgan 1994). A “militarized masculinity” is part of war culture that impacts those who are socialized into the culture

of soldiers (Williams 1994). Military masculinity places great emphasis on stamina and physical vigor and exerts extreme pressure on soldiers to live up to these ideals. Fienman (1995) argued that the media framed the Gulf War as a “rebirth of masculinity” following Vietnam, despite the relatively large number of female soldiers. Media coverage of the Gulf War made abundantly clear how pivotal the discourse of war is to the consolidation of the penis/ phallus equation: conventional masculinity (Silverman 1992). Although “women are among the veterans, the war itself and soldier life in general have been culturally coded as masculine” (Shriver et al 2002b:132).

Militaries around the world have defined the soldier as an embodiment of traditional male sex role behaviours (Barrett 1996). Masculinity has long been associated with strength, toughness and vigor, and sickness has been coded as weak and feminine (Ehrenreich and English 1978). Just as militaries embody masculine ideals from culture at large, they also impact the notion of masculinity in the wider society. Consequently, the military and war are said to be sites where hegemonic masculinity is reproduced and maintained. The term ‘hegemonic masculinity’ refers to a particular idealized image of masculinity in relation to which images of femininity and other masculinities are marginalized and subordinated. The hegemonic ideal of masculinity in current Western culture is a man who is independent, risk-taking, aggressive, heterosexual, and rational (Connell 1995).

The link between masculinity, the body of the soldier and ability to fight effectively has, at times, been direct. Bourke (1999) has reported that in WWI and WWII there was a focus on the selection of the most effective combat soldier based on a “brief inspection of the body build to determine characteristics of masculinity” (p.111). Thus, combativeness was inscribed on the male physique. For soldiers their body is their tool, weapon, and livelihood and that body must be a masculine body. Violence is turned on one’s own body and the body is virtually assaulted in the name of masculinity and achievement (Connell 1995). Furthermore, the individual body, its strength, and its masculinity stand for the strength and masculinity of the society as a whole.

One of my informants, mentioned earlier, differed dramatically from the others. He was a high-ranking officer and was ill with a chronic fatigue condition he did not attribute to GWS. Henry was also different in that he saw the mind and body as indivisible and related GWS to stress. He commented on the physicality of his troops:

One of the first groups of my sailors... who went downhill psychologically was a huge surprise to me. It wasn't the lounge lizards, the big boozers from way back and the degenerates; it was the barbell pumping biceps revellers. And I know why they went down hill first. Because they were losing their drip feed of endorphins or self-esteem or reassurance that came with their posturing and sweating twice a day everyday. It all had to go. They were in long watches tucked in the bowels and their bodies were going to hell. And they hated it. Those guys were actually showing us that the military's huge focus on physical excellence is actually a double-edged sword. So much of what we have to do is based on physicality. You can become wow and when you can no longer wow about your rippling body you say, Christ, I'm a heap.

Masculinity as warrior is central to the understanding of military cultures. Mosse (1990; 1996) has shown that although the notion of the warrior male had existed before, WWI strengthened this connection. Moreover this "reading of masculinity as warrior involves a clear distinction between the protectors and protected, soldiers and civilians, warmongers and peacelovers, and masculinity and femininity" (Agostino 1998:58). From "small rituals such as shaving heads and discarding civilian clothes for uniforms, to warrior initiation rites, violent drill instructors, hazing rituals, sex education films on the harms of venereal disease, recruits learn that there is 'a cult of toughness and masculinity traditionally associated with making soldiers out of civilians'" (Barrett 1996:131).

Masculinity achieves meaning within patterns of difference. If "success for men is associated with 'not quitting' in the face of hardships, femininity becomes associated with quitting, complaining, and weakness. This follows Kimmel's (1994) notion that definitions of masculinity depend on changing definitions of women and gay men who serve as the 'others' against which heterosexual men construct and project an identity. In fact, there is a tradition in the military of reserving the labels associated with femininity for the 'other' (Enloe 1990; Strange 1983)" (Barrett 1996:133). In his study of notions of

masculinity and the US Navy, Barrett found that from the first day of training, recruits who complained or did not keep up with the others were the targets of gendered insults: they were called girls, pussies, weenies, and wimps by the instructors. Often, while marching the instructor leads the men in songs that demean women as weak and feeble (Barrett 1996). Thus, masculinity in the military sets itself up by associating negative traits with women.

Morgan (1994) says: "Of all the sites where masculinities are constructed, reproduced, and deployed, those associated with the war and the military are some of the most direct. Despite far-reaching political, social, and technological changes, the warrior still seems to be a key symbol of masculinity... Traditionally, then, combat and military experience separate men from women while binding men to men. It is a separation which reaches deep into a man's sense of identity and self." (pp.165-166). Images and discourses of masculinity as warrior require as much as possible a negation of the feminine and homosexuality. One of the necessary "characteristics of masculinity as warrior is that of men's flight from the feminine. Most of this is done in response to a culture where men support and encourage one another's masculinity to maintain a hegemonically masculine culture" (Agostino 1998:64). In relation to this Kimmel writes: "...being a man means 'not being like women'. This notion of anti-femininity lies at the heart of contemporary and historical conceptions of manhood, so that masculinity is defined more by what one is not, rather than who one is" (1994:126).

Narratives about GWS go to the very heart of notions of masculinity. Veterans stress the physical notion of masculinity: masculine bodies are strong, muscular, fit, and have effective, adaptive immune systems and impenetrable defensive barriers. Veterans commonly described themselves and their pre-war bodies as the epitome of masculinity. In contrast, they depict their present state in terms of deterioration, old before their time and weak. The symptoms they most often discuss are fatigue, memory loss, aches and pains, and low libido; all which can be associated with aging, degeneration, fatigue, weakness. Sexuality and sexual performance are an essential part of masculine identity, and failure in this regard is most damaging to a man's sense of self-esteem.

Veterans often suggest that the first sign of their illness was a lack of fitness, often indicated through failure at fitness tests. Barrett (1996) found that the image of masculinity that is “perpetuated involves physical toughness, the endurance of hardships, aggressiveness, a rugged heterosexuality, unemotional logic, and a refusal to complain” (p.131). It is never assumed that such character traits are permanent, however. It must be continually confirmed and exhibited. Barrett points out that the Navy creates structures and routines that call for continual testing of these qualities. This “is a culture that chronically creates trials that separate 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). Men’s masculinity, then, is insecure and constantly in question. This follows Collinson’s conclusion that a culture that encourages continual comparison “recreates the social insecurity it is intended to transcend” (1992:97). Many veterans told me that the worst, most embarrassing that could happen would be to fail a fitness test with its accompanying insults of being referred to as women and homosexuals.

The physical nature of masculinity has been emphasised in military culture and the wider society. This ties into the fact that self and identity have been increasingly associated with the body (Chapter 6 and 9). Mosse (1996) argued that the body itself took on symbolic meaning in the second half of 18th Century due to the fact that it was a more visual age and this affected notions of masculinity. For soldiers, “their outward appearance was crucial: supple, lean, muscular bodies, striking eyes” (p.115). Historically, combat effectiveness and characteristics important in war, such as valor were found through physical inspection (Bourke 1999). Prior to and during WWI the grading of recruits into categories “was based as much on perceptions of the relationship between physical masculinity and combativeness as it was on medical principles of healthiness” (Bourke 1999:109).

Shriver et al (2002b) have suggested that there were a number of cultural constraints to US veterans labeling their illness as GWS: their continuing patriotism, their value of

group cohesion and an idealization of strength and vigor. The latter was related to the association of military pursuits and health with masculinity. I would argue, however, that instead of constraining the labeling illness as GWS, the idealization of masculinity as strength and vigor might have encouraged thinking of their suffering as GWS. Men who focus on fitness and health as the markers of masculinity may find it harder to accept their body's inevitable decline. They may be more likely to need a reason for physical degeneration and failure. They are also more likely to focus upon such decline and see it as negative and strongly unfavourable. Thus, they would look towards an acceptable reason for their weakness- and one which points to their wartime experience, such as GWS, would be highly ideal. If sickness and inability to cope are coded as weak and feminine, then these men would need a culturally acceptable reason for their state.

MASCULINITY UNDER THREAT

Veterans are unmanned. As soldiers they were part of a culture which is the quintessence of masculinity; yet they now see themselves and their bodies as lacking this masculinity. I argue that it is a masculinity under threat. GWS emerged at a time when there were a number of changes in the lives of these men and in the military in general. During the period when GWS emerged the military was experiencing two major trends: 'Options for Change,' and the integration of women into the military. The phenomenon of 'Options for Change' has appeared in the lives of the men I describe. This episode of the military's history was one which had enormous repercussions for GWS sufferers. Prior to the Gulf War there was a concerted effort on the part of the government to trim down the forces. This meant redundancies as well as offering certain military jobs to civilian contractors. When hostilities developed in Iraq this action was postponed until after the war; however, once the war was over the MoD quickly resumed the process of reducing and altering the services. This meant that many soldiers, soon after returning from war, were faced with the prospect of redundancy.

Many of my informants report they were forced to accept voluntary redundancies, others say they were effectively pushed out and still others suggest that they happily accepted the offer of voluntary redundancy and the benefits that accompanied it. So, many of my

informants along with other members of the armed forces found themselves stripped of their soldier identity and confronting life in the civilian world. 'Options for Change' and the entrance of women threatened the dominance of the military man. The latter trend¹ created a challenge to the image of the male warrior. If these gruelling tests are there to separate men from the boys, what does it mean if women can pass them (Barrett 1996)? These changes also meant that soldiers were competing for fewer places and competition became more fierce. 'Options for Change' and the entrance of women into the forces opened boundaries which had once been firmly closed to women and civilians.

Masculinity is defined more by what one is not, rather than who one is (Kimmel 1994). In relation to war, masculinity and femininity are set apart as polar opposites and women's presence in contemporary militaries has precipitated some of the most vociferous essentialist arguments surrounding gender. The increase of women's participation in Western militaries problematises the hitherto exclusive link between masculinity and war (Morgan 1994). During the Vietnam War female combatants came to epitomize all that was emasculating about women in war (Bourke 1999). In America, the proportion of women in the US military increased from less than 2 per cent in the first two years of the 1970s, to nearly 5 per cent by the middle of the decade, and 7 per cent by 1990. In Britain, 10 per cent of the forces were female by the end of the 1980s (Bourke 1999).

Women were not seen to have participated in war as warriors prior to the Gulf conflict. In her interviews with Australian Navy officers, Agostino (1998) found that some men felt threatened by women they perceived to be actively competing with them for this warrior identity. A young Sub-Lieutenant, for instance, argued that during the Gulf War women were receiving "all" the media attention. In demanding equal participation with Navy men, women were "seen to be chipping away at this 'innate' masculine role. In doing so, men perceive women to be undermining the very fabric of society, to be going

¹ 'Options for Change' also brought about a threat to the male warrior identity in that many jobs became open to civilians.

against “natural” gender laws which endow each human with an essential sexual and gender identity” (Agostino 1998:61).

At the same time more subtle changes were taking place which were changing the military in which Gulf veterans had served. Increasingly, the British forces were finding themselves in peace-keeping roles, often with limited power to act. The veterans I spoke to often described what they saw as the changing face of the military as a result of human rights laws. These laws meant there were stricter rules referring to how new recruits and others could be treated. Many cite this change as affecting the discipline within the armed forces. It was suggested to me on numerous occasions that such laws in effect weakened soldiers because physical discipline and force could no longer be used; the forces were seen as being undermined and weakened by these new changes. As has been discussed in previous chapters, the training of new recruits can be seen as a “toughening up” process or even “making men out of boys.” The new human rights laws, however, are seen to prevent this necessary process, meaning that the forces as a whole were soft and feminised.

Some military commentators have noted an eroding of firm boundaries around militaries as a result of a culture of rights and litigation. Fundamental to the system of war is the “recognition that soldiers are not merely civilians in uniform: they form a distinctive group within our society that needs a different set of moral values in order to succeed in circumstances which greatly differ from those prevailing in civilian life” (Rose 1997:20). Furthermore, this military commander points out that this separation is necessary for, no other group in society is required to kill or sacrifice their lives for the nation. With the military following wider cultural trends of pursuit of individual rights the division between civilian and soldier is further diminished.

Another change that occurred during the time most of my informants were in the military was the increased domination of technology. Success in war is scored mainly in terms of territory captured, enemy weapons destroyed, or industrial infrastructure disabled (Clausewitz 1976; Payne & Gray 1980 in Gusterson). Gusterson (1991) argues that the

representation of the Gulf War was remarkable “for the way in which it treated bodies as objects for mechanical enhancement, weapons as surrogates for the bodies of warriors” (p.49). He also notes the absence in the media of maimed, scarred and dead bodies in a war that was entirely televised and had at least 100, 000 casualties. Technology reigned supreme with supremacy portrayed in terms of the allies’ ability to transcend the limitations of the human body (Gusterson 1991). The body was re-engineered through machinery and medications, creating a more powerful and effective fighting tool. In focusing on the way in which human bodies could be improved, the vulnerability and deficiency of human bodies was emphasised. The fit, strong, human, male body was simply not good enough.



Soldiers wearing gas masks

The vulnerability of bodies to the threat of chemical and biological weapons was addressed with chemical protection suits, inoculations and NAPS tablets which supposedly armored ordinarily fragile human bodies against such threats. In order to suppress the body rhythms which constrained their Iraqi enemies, US pilots used amphetamines to enable them to bomb continuously. US and UK soldiers used night vision goggles and thermal sights to enable them to see targets in the dark which would not usually be visible to the human eye (Schmitt 1991). The bodies of the soldiers “thus had a post-human, cyborg-like quality which was often foregrounded in television images of soldiers in chemical suits with masks, or in night-vision goggles” (Gusterson 1991:49).

As Gusterson comments, the media representation of the war focused on the machinery involved and often had the effect that the war looked like it was a war fought only between machines. In the postmodern age of war where bodies are deemed lacking and technology reigns supreme, is GWS an act of protest? Are GWS sufferers, through their symptoms and their suffering, demanding that their bodies are seen and heard? The body is crying out to be noticed. The question remains: what happens to these bodies when they are once again stripped bare? Bodies that were made to feel vulnerable and inadequate were hybridized, but after the war their machine and chemical improvements are stripped from them leaving them exposed: exposed and more aware than ever of their vulnerability. They are no longer a hybrid, superman or superhuman. Alternatively, the chemicals and medication given to them to respond to their vulnerability are now, as they see it, permanently a part of them: changing them and their bodies irreversibly.

The link between masculinity and domination of technology has a long history in militaries. Pilots have long been seen as the ultimate masculine ideal, a perception that began in WWI. That “pilots controlled the most up-to-date machinery no doubt reinforced the masculine ideal.... The fighter pilot mediated between the individual and the perils of modernity” (Mosse 1996:118). Thus, those who do not master technology or, worse, are mastered by it, are deemed less masculine.

The changes mentioned above directly affect the lives of these men and the way they experience the world. The majority of the veterans I met had taken (or been forced to take) redundancy during the period of ‘Options for Change’. Thus, within months or a few years of the Gulf War they were made redundant; lost their military identity which they valued so highly. Most suggested that they found the change from military to civilian life difficult- that they simply could not fit into civilian culture or find suitable work. Thus, many depended on war pensions and other benefits whilst their wives worked.

Did they fight?

With the advent of new technology, there is an increase in non-combatant and support services in militaries (Connell 1992). Interestingly, most of my informants did not play an active combat role in the war, as the majority were support troops. Support troops are those who are not actively engaged in combat, but who are part of the infrastructure that maintains those soldiers who are.² There are a disproportionate number of GWS sufferers who had the role of medical assistants, nurses, theatre technicians, and chefs (Appendix Four). Their expression of being unmanned may be linked to their lack of warrior role, the absence of a chance to fight and their anomalous role as carer in the military. It is possible that this may have something to do with contradictory roles in the forces and in the war, but are performing a “feminine” task of nurse, carer, cook, provider.

Most join the forces to fight, to be a pilot, to drive a tank (Jones 2004); but the majority of sufferers found themselves in much less masculine and glorious jobs. As mentioned above, the reading of masculinity as warrior involves a clear distinction between the protectors and protected, masculinity and femininity; yet these soldiers had roles which blurred this strict notion of masculinity. GWS may have something to do with this contradiction of soldier role, but carer job. It must also be remembered, in light of the discussions contained in Chapter 4, that support staff such as chefs, medical technicians, and nurses are involved in work that transcends body boundaries. They deal with liminal and risky substances.

As the military is central to the creation of dominant masculinities, the men who join the forces can be seen as striving to achieve an ideal form of masculinity that emphasizes strength, mastery, violence, protector and rationality. Many soldiers I spoke to suggested that they were pleased to have been chosen to go to war in that “this is what I was trained for” or “it’s my job”. They had longed for the opportunity and suggested that those who did not get it remained jealous. As Barrett suggested, the US Navy has “an elaborate

² Arms of the military are divided into three main groups: combat or ‘teeth’ arms (infantry, tank crews), combat support arms (engineers, artillery), and combat service support arms (anything else, i.e. medical support, clerks).

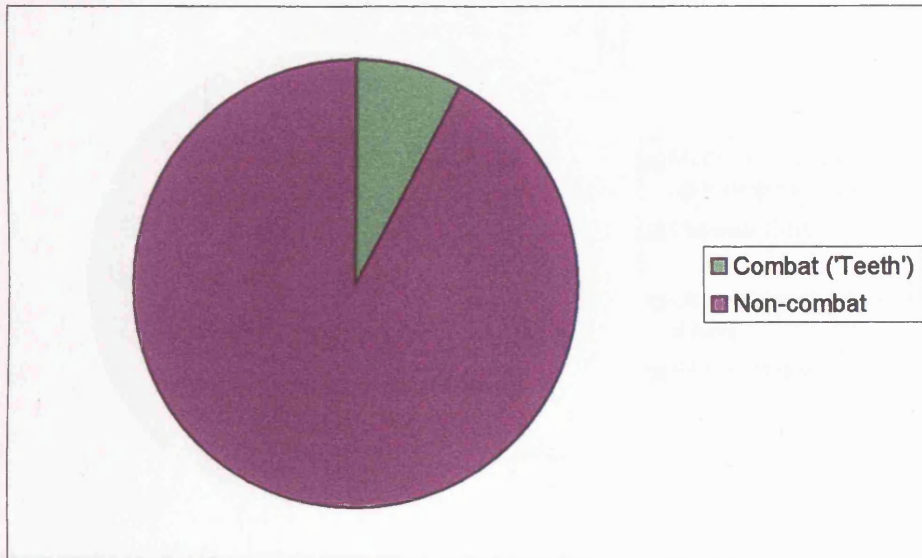
system of awards and rituals that reinforce the value of demonstrating mastery, especially successful performance under pressure.... These organizational practices- surveillance, testing, recording, keeping career records- begin to shape and guide the passions of these men. They yearn for the opportunity to demonstrate prowess under pressure” (1996:136). The question remains: what happens when they simply do not get an opportunity to demonstrate such prowess? As mentioned above, many of the sufferers of GWS were support troops in the war who simply did not get an opportunity to fight or even see the enemy. They had roles of chef, nurse, medical technician, clerk which meant they were away from the front lines and were, thus, denied the opportunity to fight.

Barrett found that in the US Navy supply officers (support troops) were considered the lowest status in the Navy. Combat specialists often referred to them as ‘supply pussies’ or ‘suppo weenies’ and the use of the metonymy of small genitalia connotating lack of virility and power in this culture (Barrett 1996). Unlike aviators and surface warfare officers, “supply officers are not permitted the traditional masculine experiences: the opportunity to take risks, to command and be in charge, and to be autonomous” (Barrett 1996:139). If GWS can be seen as an expression of unmaning, then the vocation in the military and their role in the actual war must be seen as a contributing factor.

If fighting and going to war are the ultimate expressions of masculinity, what happens to those who are denied it? Most men join the military to fight, to kill, to use a gun. The opportunity to go to war is seen as a positive experience of “proving oneself”. Yet the majority of sufferers did not get such an opportunity. Indeed, sixteen percent of sufferers I interviewed were not deployed at all into the arena of war. This means that they remained behind, were not sent to the Gulf, and did not participate in the war at all. In total, 78 percent of my GWS sufferer informants were either support troops or non-deployed.³

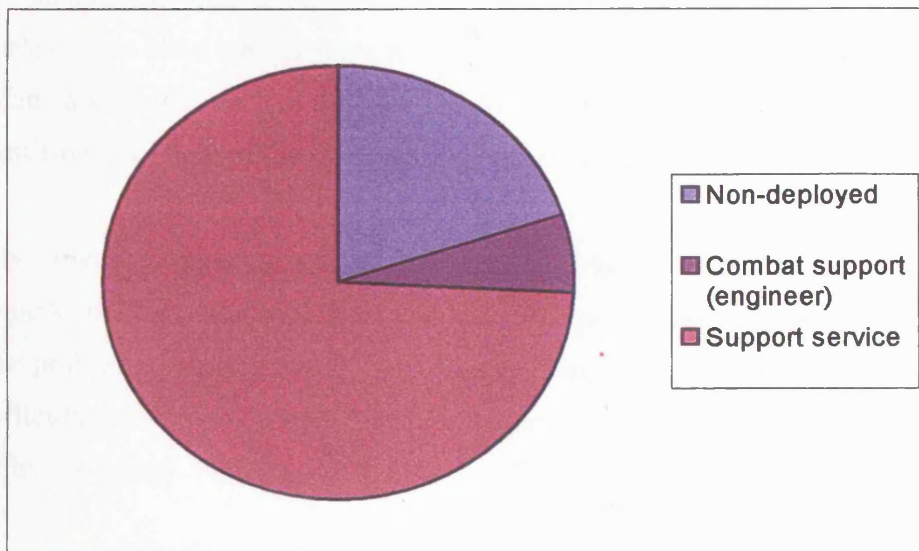
³ In actual fact this number may be higher. Of the 45 sufferers I interviewed 38 told me their role in the military. 35 of these were either non-deployed or support (combat and service support). This means that of those sufferers who gave this information 92 percent were non-deployed or support. Others may have been support, but it was not clear from their answers.

Figure 1: Sufferers' service arm during Gulf War



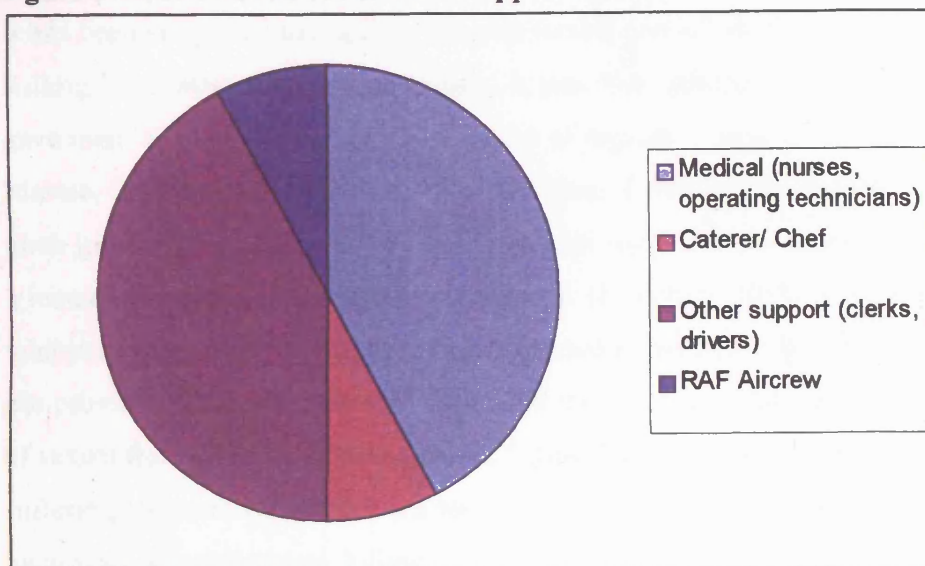
Total: 38 sufferers informants listed job

Table 2: Non-combat roles of GWS sufferers during Gulf War



Total: 33 sufferers

Figure 3: Jobs of GWS sufferers in support service



Total: 26 sufferers

Even for those in combat roles, there was little opportunity to fight. After months of preparation, the ground war lasted for less than 100 hours. Many felt disappointed and described the war as a letdown. As the British commander, Sir Peter De la Billière wrote, "some soldiers, inevitably, had a feeling of anticlimax. For men who never fired their weapons, or had a real go at the enemy, it all seemed a bit of a waste of time" (1993:300). Many also suggested that they did not do what they set out to do: a persisting sentiment, particularly in light of the more recent conflict in Iraq, is that "the job was not done."

My very first meeting with a Gulf veteran was dominated by his discussion of the experience of coming back from war and subsequently leaving the forces. He focused on the problems veterans have: from finding that they cannot get a job to their wives' difficulties in having to run a household when everything had previously been taken care of by the forces. He said,

You get these problems all the time after the wars. Readjustment, getting life back to state where thinking for yourself, but I still feel that things are very different on the Gulf side. Maybe because there was no end. Started,

but no end. Just told to stop firing now. Firing and then told not to and still being fired at. Seems like it was a game.

It has been suggested that killing is a pleasurable part of war for soldiers (Bourke 1999). Killing “was intrinsically glamorous⁴. It was like ‘getting screwed the first time’ and gave men ‘an ache as profound as the ache of orgasm’⁵. In the words of a black Muslim Marine, ‘I enjoyed the shooting and the killing. I was literally turned on when I saw a gook get shot’⁶” (Bourke 1999:32). It has been suggested that Marine Corps training for Vietnam produced a degraded masculinity (Eisenhart 1975) and the soldiers were whipped up into a state of pitch of quasi-sexual excitement. But the war experience did not provide them with sufficient outlet and the “ordinary Marine, whipped up to a pitch of sexual frenzy, never ‘got his gun off’” (Shephard 2000:356). The result of which was suffering Vietnam vets who were seen as dysfunctional supermen. Evident in the above historical descriptions of killing and war is the sexual nature of it. War is highly sexualized, as is the language of war (Littlewood 1997). During my fieldwork I was told about a recording of a US pilot made during the Gulf War. The pilot was bombing Basra Road and was “practically orgasmic” (Jones 2003).

The inference is that killing is essential in the experience of war and those who are unable or did not get the opportunity were at risk. Bourke (1999) found that in WWI men “unable to cope with killing were an aberrant group. Frighteningly, psychiatrists recognized that more men broke down in war because they were *not* allowed to kill than under the strain of killing.... The absence of any outlet for aggressive tendencies put soldiers at risk of psychological disorders, argued numerous psychiatrists in later conflicts” (p.248-9). Again, it should be remembered that the ground war was very short and likely added to the general feelings of dissatisfaction and discontent which predominate in discussions of GWS.

⁴ Michael Herr, *Dispatches* (London 1979) p.199

⁵ Philip Caputo, *A Rumor of War* (London 1977) p.268 and James Jones, *The Thin Red Line* (New York, 1962) p.197

⁶ Mark Baker Nam. *The Vietnam War in the Words of the Men and Women who Fought There* (London, 1982), p.51

As mentioned previously (Chapter 6), wives, mothers and partners play a major role in labelling illness as GWS. On many occasions veterans explained that their wives spoke about their partners to other wives and this is how they came to suspect GWS. I would suggest that the dominant role of women in identifying illness in their partner and pushing for a GWS diagnosis may be caused by an underlying dissatisfaction with their husband's behaviour and performance. Many women I spoke to said that their husbands were irritable, distant and emotional and said that this is when they first began suspecting something was wrong. When the men returned, they seemed like strange creatures. In the media reporting of the recent conflict in Iraq, it was said that women were often apprehensive about the men's return because they were used to being on their own and were worried about having to start relationship again (Kennedy 2003). Thus, GWS must be seen in the context of men returning home from war and in so doing altering the way of life women had experienced. Men returned home and seemed different from the way they had been before. But also in most cases, men returned home full time as most left the forces soon after the war as a result of 'Options for Change'. Women may be eager to maintain their partner's identity as a soldier, through GWS and veterans' associations, in order to preserve or re-establish status. Furthermore, employing GWS may be an acceptable way to explain the failures and inadequacies they observe in their husbands. Their men may not have lived up to the masculine ideal and, thus, the women in their lives may have sought an explanation on their behalf.

GENDER ANXIETY

GWS narratives invariably point to anxieties about gender identity and masculinity. The veterans I spoke to often discussed a lack of libido and impotence. This theme is further developed in narratives of GWS as they focus on the notion that veterans suffer from 'old people's diseases,' 'women's diseases,' 'old women's diseases'. It would seem that veterans, through their bodies, are expressing their sense of being unmanned. Their experiences made them feel as though their masculinity was under scrutiny and came up lacking.

Women are 'othered' in a particularly intense way within military culture (Barrett 1996). Discipline, "obedience, compliance, and exacting detail, ideals that are depicted as 'tough' and masculine, depend upon contrasting images of the feminized 'other' - being undisciplined, scattered, emotional, unreliable.... One way to emphasize discipline, endurance, and rationality as masculine traits is to depict lack of discipline, unreliability, and emotion as feminine" (Barrett 1996:139). What GWS may be expressing, in part, is a contradiction with these men as they see themselves as containing what they were taught were negative, feminine qualities. They were trained by the military to detest and avoid such feminine qualities (fatigue, failure, emotion) yet they find themselves embodying them.

One commentator spoke about the more recent war with Iraq in terms of a response to twenty first century white male malaise and emasculation. Mailer (2003) suggests that the real reason the US went to war with Iraq was to boost the white male ego; the ongoing malaise of the white American male needed a remedy. Their dominance in sport was eroded, with "black genius" prevailing. The women's movement had taken hold and "the old, easy white male ego had withered in the glare." This key group for President Bush's political footing was floundering. "As a matter of collective ego, the good white American male had had very little to nourish his morale since the job market had gone bad, unless he happened to be in the Armed Forces. There, it was certainly different. The Armed Forces had become the paradigmatic equal of a great young athlete looking to test his true size" (Mailer 2003). White men still dominate the armed forces and, importantly, they dominate the highest ranks and most highly regarded trades. If we cannot find our machismo anywhere else, says Mailer, we can certainly settle in on the interface between combat and technology. This passage reveals the way in which war and fighting are intimately linked not only with individual masculinity, but the collective masculinity of a culture.

The problem of linking masculine gender with bodily changes has been a matter of anthropological concern. In his monograph on his struggle with a spinal chord tumour, Murphy exposes the contradictions that emerge as "weakening and atrophy of the body

threaten all the cultural values of masculinity” (1987:94). A study of elder US veterans’ ideas about masculinity sheds light on Gulf veterans’ difficulty in coming to terms with aging and illness and their need to reformulate gender identity. In this study ideas about gender have been investigated in veterans suffering from prostate cancer (Stansbury et al 2003). With prostate cancer and treatment, difficulties associated with chronic illness are “multiplied as sufferers come to terms with assaults on embodied bases for gender identity, most directly in the forms of urinary incontinence and impotence” (Stansbury et al 2003:177). The authors concluded that coming to terms with disease, chronic illness, and aging may be challenging for men who adhere to an inflexible gender schema. They found that prostate cancer patients reaffirm a strongly moral normalizing discourse about “being a man” yet tend to separate roles and values from male physical and sexual attributes (Stansbury et al 2003).

Research also suggests that men with a fixed view of masculinity may have worse health outcomes (Stansbury et al 2003). Health psychologists have cast the relationship between masculinity and coping in a problematic light. Eisler and Blalock (1991) suggest that a “male behavior template” underlies aggression, combativeness, and other aspects of some male coping styles and can lead individuals with rigid ideas about masculinity to suffer greater stresses with illness than are suffered by those who do not hold such views. Inhibited emotions, over-reliance on aggressive behavior, a need for control, and an obsession with competitiveness are noted as basic dispositions that can account for problems. Eisler and Blalock see a “strong commitment to masculine gender role cognitive schemata” (pp.49-50) at the heart of the problem. It has been suggested that men “who most strongly retain an image of male physicality against the realities of aging and diseased bodies are most at risk for stress, depression, and difficulties with personal support networks. Successfully coping...involves redefining the self, at least in part through very partial transformations of the normalizing ideology of masculinity. This is not an act of resistance: it is a gentle, if certain, rounding of cultural edges” (Stansbury et al 2003:196). The patterns the authors saw may well reflect a masculine image that emerges from the military’s role as a socializing force for men, even as the monolithic

nature of masculine constructions in the military may be overstated (Connell 2000:215; Barrett 1996; Agostino 1998).

LEAVING THE MILITARY

GWS sufferers endure gender anxiety where they have moved from an extremely ritualized and structured masculine world into a much more chaotic life. They express this existential crisis by way of their bodies and the symptoms they suffer. Veterans experience a crisis of personhood, identity and masculinity in a post-combat, post-forces context. Gulf veterans' reported health problems are worse the lower their rank is, and after they have left the forces (MRC 2003). As mentioned previously, most of the veterans I spoke to left the military during the period of 'Options for Change'. What this meant was that almost immediately after the dramatic experience of war they found themselves in civilian life. Whilst they were in the forces they had a structured identity—that of a masculine soldier, warrior, employed man, hero. They then found themselves in an entirely new world where they had to fend for themselves: pay bills, find a job and struggle with the lack of established identity.

It could be suggested that ascribing to a GWS narrative enables a floundering veteran to anchor himself to a complete and fully-formed identity. Beck and Giddens have both suggested that living in contemporary society requires a reflexive "Do it yourself" approach to one's biography (Beck 1992:135). The GWS movement provided an attractive template to reconfigure veterans' identity. This identity is one of fractured hero; created out of illness and of being wronged. GWS sufferers often re-define their identity along the lines of illness and the community of sufferers they inhabit, yet their identity as GWS sufferers acted as a constant reminder of their status as veteran, soldier, warrior in the Gulf War. Their new identity, therefore, continues their association with the Forces.

Many veterans explain that they found it difficult to move from military life to civilian life. My first meeting with a veteran, mentioned above, surprised me in that instead of focusing on the illness itself, he emphasised other social and economic factors. This

veteran, one of the leaders of the GWS movement, spoke mainly about veterans' experiences of returning home, of leaving the military, and of unemployment and pension problems. He suggested that the military sets men up to be dependent; they are taught not to think for themselves, but this causes problems when they leave the forces. Soldiers and ex-soldiers can identify each other from a mile away⁷, as though their bodies will always be military. Although other veterans seemed to focus more on symptoms and the illness itself, I found that my conclusions were to come full circle, back to this first meeting with the veteran mentioned above.

Veterans explain that it was difficult to adjust to a life where one had to fend for oneself. In the military, they explain, they were told when to eat and meals were provided for them. Their bills were paid, accommodation was arranged: their life was entirely routine and organized. Not so in civilian life- and many suggested that this was a difficult reality with which to come to terms. Employment was also not as straightforward as they presumed. Finding that their identity as a soldier and war veteran was not as valuable as they had expected was an upsetting realization for some. Many veterans say they found it difficult to find a job and for the ones who did it was often difficult to work with civilians. Civilians and military people were different animals, I was told on numerous occasions

A major aspect of military identity is its perceived dominance over civilians. Military careers are positioned as demanding more from the average person than civilian careers (Agostino 1998). There is an "us and them" mentality; civilians are associated with the protected and the feminine. These boundaries are blurred when the veteran leaves the forces: he is neither civilian nor soldier. Although the majority of sufferers I interviewed were ex-military and, technically, civilian, they maintained a fierce distinction between themselves and the rest of civilian society. When speaking about the centrality of the distinction between civilian and soldier for the warrior masculine ideal, it is important to remember that there are a high proportion of sufferers who were in the TA and reserves.

⁷ I was often told that this was due to the way they dressed, but also the way they moved and always looked cautious and watchful.

They, too, blur these boundaries from the very outset. They are neither civilian nor military. They are looked down upon by regular soldiers, yet seen as military by civilians. It would seem, therefore, that there was a tension between the veteran's life within civilian society and their previous identity as a soldier. In the military their identity was anchored in the fact that they were better than and different to civilians, yet they now find themselves as part of this denigrated culture.

Leaving the military behind also meant losing an identity and comrades. Much of military life is based upon close relationships and the community of soldiers. Most of my informants fondly recall the close friendships they had and missed the camaraderie of military life. The veterans' association fills that absence to some degree, creating a community of ex-soldiers along the lines of the military environment. It surprised me that although it was the military that they held responsible for making them ill, the veterans I spoke to remained fiercely loyal to the forces. Many told me that their years in the forces were the best in their lives and many regret leaving. Veterans often told me that they would go back to serve if they could. During interviews in their homes I would see pictures and souvenirs from the war displayed in prominent positions. For example, one soldier had a huge wedding picture above his mantelpiece in which he was dressed in full uniform. I was surprised by this as the veteran had been a TA soldier and had not had a terribly successful career. Instead of a military uniform they wear their veterans' association uniform with their regimental tie. It was clear that veterans highly valued their military identity and tried to retain it. The identity they re-created in the form of GWS sufferer places their military past at the forefront.

Such ongoing loyalty to the forces has been seen in the US case as one major constraint for veterans in thinking of their illness as GWS (Shriver et al. 2002b). The veterans interviewed by these authors remained very patriotic and this patriotism "often led to difficulty connecting their sickness to their wartime experience as they had to reconcile their patriotism with their belief that the government is not acting appropriately" (p. 131). By participating in military culture, individuals learn to value group cohesiveness highly and to avoid any activities that counter unity and camaraderie. There were ways,

however, to overcome such constraints. Many veterans “replaced their original sense of solidarity with all soldiers with a sense of connection to other veterans with similar understandings of Gulf War illness” (Shriver et al 2002b:132). Far from constraining the GWS movement, I would suggest that an ongoing focus on the military as the epitome of patriotism and heroics reinforces labelling illness as GWS. GWS means that the sufferer is always linked with their heroic past and their military identity.

A view of gender identity as contingent, negotiable, and fluid has become important in both medical anthropology and in anthropology in general. Writing about gendered outcomes in cancer, for example, Manderson (1999) examines patient narratives, raising the issue of renegotiating gender and sexuality. She noted that men seek to “remain masculine” when faced with the iatrogenic collateral damages implied by prostate cancer treatment. This contrasts markedly with women’s struggles to “recover femininity” after surgery. Stansbury et al (2003) note that the “negotiation of chronic illness can imply fundamental redefinitions of self and identity, and that these reformulations may be quite different from a reassertion of normalcy. In some illnesses, transformation involves the blending of identity and disease diagnosis” (p.182). The authors point out that Estroff, (1993) showed how patients diagnosed with schizophrenia become the illness as they redefine their identities according to the schizophrenic label. Similarly, GWS sufferers become their illness and the illness itself becomes an organizing feature in their life: a lifestyle. Unemployed and unable to work, many of these men organize their time around the illness: internet searches; doctors’ appointments; and writing letters to and contacting lawyers, doctors, the government; and contact with other sufferers. The illness and its accompanying battle for recognition becomes the central focus in their lives. More recently, authors have begun to analyze these profound identity transformations as a reaction to social processes and contexts (van Dongen 2001; van Dogen and Reis 2001).

MILITARY CONTEXT

The above discussion focuses on the way in which veterans from the Gulf War experienced a crisis of identity as they moved from military to civilian life. This crisis is not unique to the Gulf case; similar difficulties have been reported in other military

groups. We have also seen that Gulf veterans faced particular difficulties in addition to the hurdles arising out of a change in status as a soldier. Problems are also not isolated to those moving away from military culture in that soldiers are seen as representing a particular group with unique troubles. The military context is of extreme importance to this group and social and psychological problems have long been associated with military men and women.

Among evidence of special difficulties is the fact that a disproportionate number of the single homeless population have a background in the armed forces (Anderson et al 1993; Randall and Brown 1994; Gunner and Knott 1997). Domestic and other forms of violence have also been seen as a military problem. After the recent conflict in Afghanistan the media reported domestic murders committed by returning troops. Timothy McVeigh, the man responsible for the Oklahoma bombing, and John Allen Muhammad, the Washington sniper⁸ were both Gulf veterans. GWS was briefly implicated in both of their crimes. Some advocates, such as Haley, continue to link such behaviour to brain abnormalities caused by GWS (Serrano 2003). There have also been cases in this country of Gulf veterans killing and GWS has been at times been pointed to as a factor. But although there have been a small number of cases in addition to these which have reported the uncontrollable, violent nature of the returning Gulf veteran, the general representation is of a enfeebled man made sick by his government.

It has been suggested that war and returning from war result in impotence and demasculation. Shephard (2000) has noted that women reacted to the WWI experience with a powerful increase of libido whereas impotence was one of the principal side effects of shell shock.⁹ A great deal of attention has been paid to the way in which demobilization of a country's fighting force may threaten to "feminize the male population" (Randolph Higonnet et al 1987:38). Showalter and others have reported the literal and symbolic impotence from which WWI veterans suffered. For returning WWI

⁸ Muhammed, with his young conspirator, was responsible for a three-week campaign of terror that left 10 people dead in and around the US capital in October 2002.

⁹ Shephard (2000) argues against the historical cliché that a collective impotence descended on the Western male: the real point about shell shock, he writes is that it undermined men's authority

veterans being in the company of women was 'strange' and women's pity as well as their new power was the source of anger. Furthermore, the war had 'desexed' them and rendered them impotent (Bourke 1996:166). Theweliet (1989) writes about the constant danger of dissolution which threatened the Freicorps soldier, a danger which was more internal than external. Recent representations of the Vietnam War have been depicted as an attempt to shift the male lack¹⁰ which attached itself insistently to the returning veteran (Jeffords 1994). Silverman (1992) suggested that the male subject is brought into a traumatic encounter with their lack in the situation of war.

In her work Silverman (1992) traces the consequences for masculinity of a particular historical upheaval: that of WWII and the recovery period. In her psychoanalytic analysis, Silverman isolates the "equation of penis and phallus as a privileged site for the investment of collective belief, and it will emphasize the degree to which our society's entire "reality" depends upon the maintenance of that equation" (p.8). She explores Hollywood movies produced soon after the war and their pre-occupation with male lack and gender role ambiguity. Silverman argues that these movies attest to a massive loss of faith in traditional masculinity, and dramatize the implications of that dissolution not only for gender and the family, but for the larger society. The focus is on the veteran returning home and not adapting well to the new situation. Sometimes "the veteran also finds himself strangely superfluous to the society he ostensibly protected during the war; his functions have been assumed by other men, or- much more disturbingly- by women. These texts thus dramatize the vulnerability of conventional masculinity and the larger dominant fiction to what I will call 'historical trauma'" (Silverman 1992:53). There is the sense that the veteran is so scarred by the experience of a loss of potency and power that they find it impossible to re-enter society.

The movies are structured around the castrated male: the penis/ phallus equation has been disrupted. Even "under the most auspicious circumstances, moreover, the fiction of a

¹⁰ This is a difficult term, but in absence of an alternative it will, hopefully suffice. By 'male lack' or, simply, 'lack' I mean to suggest the absence of desired qualities: inadequacy, lack of potency and dominance. It relates to the Freudian idea of 'castration from which all males are said to suffer. It can be seen in symbolic terms to suggest a loss of potency, power and authority.

phallic masculinity generally remains intact only for the duration of the war.... For the society to which he returns, moreover, he represents a sorry travesty of “our fighting men and boys,’ a living proof of the incommensurability of penis and phallus. Because of the resulting crisis of faith, “reality” itself is at least temporarily jeopardized” (Silverman 1992:63). These movies focus on the re-alignment and restoration of the dominant fiction. Post war periods are characterized by an attempt to re-configure masculinity. The wars mentioned above involved long, drawn-out hostilities that effected societies greatly. In comparison, the Gulf War was short and did not effect the home society from which soldiers came: it remained localized. Instead of all of society re-figuring male authority, it would seem that this is occurring amongst the culture of sufferers and in the bodies of men.

Post Combat Syndromes

Unwin *et al.* (1999) suggest that the finding that active military service has led to long term adverse health effects is not new. Each modern war has produced its own post-combat syndrome. Although they are represented by similar clusters of symptoms, individual wars generate their own physical focus, diagnostic terms and explanations. Such a reading of post-combat syndromes corresponds with the interpretation of illness as metaphor (Chapter 1). Gulf veterans respond negatively to this line of inquiry as it undermines the status of GWS as a new, unique and physical illness. Seen as characterized by unexplained medical symptoms, the current thinking about post-combat syndromes can be seen as allied with theories of somatization arising from psychological distress.

War syndromes “present as clusters of unexplained symptoms for which no demonstrable organic cause can be found. They reflect the health concerns of their time, and their focus alters as society’s fears change as a result of developments in medical science” (Jones 1999a:4). Late nineteenth century wars, for example, produced combat syndromes characterized by illnesses involving the heart. This was a reflection of the medical focus on the heart during this period mainly because of new medical findings. Health issues were a major source of concern for veterans and led to the formation of pressure groups

campaigning for improved benefits and treatment (Jones 1999a). The 1960s, however, “witnessed a cultural change as the rights of the individual were promoted in favour of the duties of the citizen to the state” (Jones 1999a:4). As Jones suggests, the increasing litigious nature of Western society as well as the increasing role of the media’s sympathy to ex-servicemen’s issues mean that veterans’ groups are more likely to campaign for health issues.

Table 2: War Syndromes

<u>War Syndromes characterized by unexplained medical symptoms</u>
<p>Pre-1914 Soldier’s heart, irritable heart, palpitation, Da Costa’s syndrome, disordered action of the heart, nostalgia, wind contusion</p>
<p>First World War (1914-1918) Shell shock, effort syndrome, neurocirculatory asthenia, war neurosis, gas hysteria</p>
<p>Second World War (1939-1945) Non-ulcer dyspepsia, psychoneurosis, battle exhaustion</p>
<p>Vietnam War (1965-1974) Effects of Agent Orange, Post-traumatic stress disorder (PTSD)</p>
<p>Gulf War (1991) Desert Storm Syndrome, Gulf War Syndrome, Gulf-related illness</p>

Source: Jones and Wessely 2003:2

Although challenges to the US military are rare, GWS is not the first time veterans have confronted the government over environmental exposures and related illness claims. Scott (1992; 1993) has documented Vietnam veterans’ challenges to the US government over exposures to Agent Orange. Less publicized claims have also come from Atomic veterans: those members of the US armed forces who were exposed to ionizing radiation from atomic and nuclear weapons tests between 1945 and 1963 (Shriver 2001).

The Vietnam War produced two divergent syndromes: one that was linked to Agent Orange and one which focused on psychological affects of traumatic memories- PTSD. The former can be seen as similar, in part, to GWS in that it focused on war-time

exposure to toxins producing a wide range of medical complaints including birth defects. And, similar to GWS, the link has not yet been proven. Young's (1995) work on PTSD looks at the social and cultural milieu of the creation of a new illness category. Developed in American military hospitals, PTSD provided an avenue through which Vietnam veterans could assuage the guilt they felt over the war. Young suggests that the category transformed the veteran from the aggressor into the victim. The diagnosis has now become available for taking on other troublesome questions regarding the attribution of personal or official responsibility in a contractual society. One of the reasons I became interested in GWS was the fact that regardless of the acceptance of PTSD as a defined and war-related category, Gulf veterans dispute a link between their illness and PTSD (Chapter 6).

Post-combat syndromes are in the domain of psychiatry and have been constructed by the historical relationship between psychiatry and the military. Although previously thought to be physical in nature, such syndromes were transformed into the realm of psychiatry and seen as conversion or hysterical disorders. Again, we can see boundaries blurred as that which was thought the realm of women: hysteria was converted into an illness from which men could suffer. War is a situation where issues are thrown up and re-interpreted and where boundaries are blurred. The emphasis veterans and their advocates place on the physical nature of their illness is linked to the fact that PTSD and other psychiatric/psychological problems go entirely against the idea of masculinity which embodies the notion of strength and rationality under pressure. The true soldier is prepared and does not crack under stress. Furthermore, in the military, saying one may be having psychological difficulties is likely to prevent one from being allowed to do one's job (gun will be taken away etc). But this adamant denial of psychological factors of the illness is also linked with a deeper cultural stance where psychiatric and psychological problems are deemed less worthy of attention.

CONCLUSIONS: EMBODYING MALE LACK

As mentioned in Chapter One, anthropologists have argued that physical bodies are shaped by culture, by means of widely held models, images, and metaphors. Metaphor

becomes embodied (Kirmayer 1992) and researchers have suggested that cultural dissonance may be enacted somatically (see Wilce 2003). The body is a rich metaphor for society (Scheper-Hughes and Lock 1987). As we have seen above, the link between the individual soldier, his body, his masculinity, and the strength of culture is direct. It is not surprising, then, that bodies of veterans embody their experiences and post-combat milieu. Following these arguments, GWS can be interpreted as the embodiment of a failure to reach the masculine ideals espoused in the military and in the wider society. Just as their pre-war bodies were shaped by culture, particularly military culture; so, too are their post-war feminized bodies. The metaphor of impotency, unmanliness, fatigue, weakness, has been embodied.

The military is a gendered and gendering institution and, thus, it is not surprising that narratives of GWS concern themselves with issues of gender and masculinity. The way in which there is a precedent of difficulties amongst military personnel has been discussed in order to better understand the context of the illness. One of the contradictions inherent in the masculine culture of the military is that, while the organization creates experiences of inevitable failure, there is no legitimate way for members to justify failure (Barrett 1996). GWS provided an explanatory system to explain each person's and the collective group's experiences. The majority of veterans I interviewed had a number of threats to their masculinity: 1) not fighting, the lack of the warrior role 2) their role as support troops within the war and the military 3) Options for Change, with its resulting redundancies 4) women and civilians entering the military 5) the changing face of the military, and 6) the dominance of and dependence on technology.

This chapter has outlined the way in which the military establishes strong boundaries which define and embody an idealized masculinity. I hope I have revealed the way in which these boundaries have been blurred in general, but in the lives of GWS sufferers specifically. As discussed in the first part of this thesis, veterans see their bodies as vulnerable, porous and "leaky". This can be seen as a reflection of wider boundaries which they see as no longer secure. The military itself is a boundary breaker: it attacks and

owns the body. Historically, war is a situation where boundaries are blurred. The absence of women in WWI combat, for example, “had an additional component: gender roles were rendered more fluid in wartime as men were required to carry out many tasks that had formerly been the preserve of the opposite sex” (Bourke 1996:133). For GW vets external boundaries were compromised: women entering the military, civilians entering, veterans leaving the confines of the military and entering civilian world. A world full of structure and rules was suddenly replaced by one of chaos. The human rights laws, entrance of women and civilians into the forces, the new emphasis on peacekeeping as opposed to fighting all could be seen as weakening the military and making it vulnerable to outside undesirable forces. Boundaries and borders which used to be structured were now penetrable and blurred. Similarly, boundaries between enemy and friend was blurred as can be seen in GWS theories of causation and stories of friendly fire contained in narratives of GWS. Veterans’ discussions of their illness reflect these blurred boundaries as can be seen in discussions of auto-immune diseases and leaky bodies as discussed in the first section.

However unique, GWS must also be seen against its more general cultural backdrop. This illness could only arise as it did out of a specific cultural milieu. This environment gave rise to but also shaped the illness. An illness can be seen as a conduit for the expression of social ills and social concerns; it may demonstrate shared sentiments, common fears, or tensions between particular groups. GWS can be seen as part of a group of new illnesses movements such as CFS, MCS, and FM which are shaped by common cultural themes and it is to this that I will turn in the next chapter.

CHAPTER 9 CONCLUSION: GWS AND WORLD TRADE CENTRE SYNDROME

One day in 2003, after I had completed my fieldwork I was looking at various GWS websites. A woman had posted a message saying that she believed herself to be ill with GWS as her symptoms were the same as those she had seen described on the message board. She had not been in the Gulf War, in fact, she was not a soldier. Living in New York during the time of the World Trade Centre terrorist attacks, she believed that the terrorists, from the Middle East, no less, had been carrying viruses or toxins on the planes with them. This scenario illustrates that themes contained in GWS resonate with other illness narratives, health beliefs, and wider cultural issues and anxieties. In particular, the focus on vulnerability, notions of risk and the increasing focus on health and belief in its elusiveness.

GWS: AN ILLNESS OF OUR TIME?

I became interested in GWS because many of the themes in modern life seemed to converge in this illness. It is a new illness which seemed to highlight many of the anxieties and concerns of twentieth/ twenty-first century life in the UK (US and Canada). As I studied this intriguing condition I became more aware of just how true this was. It seemed that every new health scare reflected some aspect of GWS and the concerns of its sufferers. The phenomena of MMR, allergies, concerns about mobile phones, food sensitivity, amongst others share common patterns with GWS: themes of toxicity and contagion; feelings of body vulnerability; a focus on the immune system; the link between the body, health and identity; as well as the belief in ever-present risks and dangers. But more than just embodying our beliefs about health and illness, I came to realise GWS also expressed wider societal concerns as well as contradictions very specific to the men and women whose lives I studied.

The previous three chapters focused on the unique aspects of GWS and how the illness can be seen as a specific entity that arose out of veterans' attempts to make sense of their experiences: of the military, the Gulf War, 'Options for Change', and leaving the

military, amongst others. This chapter widens out the discussion of GWS to reveal the way in which GWS can also be seen as characteristic of the wider society in which it is found. In order to understand GWS, the issues which helped to shape it, as well as the cultural beliefs which enabled it to emerge and gain such a foothold, we must see it in its wider context. When we contextualize what people say and do it makes sense. As anthropologists, we widen the context ever more to make people's actions intelligible. To do so in the GWS case, it is necessary not only to make sense of the illness by looking at military life, but also to see how this illness arose as part of a wider set of circumstances. When we do so we see how GWS shares a great deal of features with other emergent and contested illnesses in the West. This concluding chapter looks at this wider context and, thus, links us back to the first chapters of the thesis and their discussions of issues of risk, bodily vulnerability, the immune system and shifting boundaries. Whilst necessary to place GWS in its wider context, it is pertinent that the specific is never overlooked. This concluding chapter reveals the delicate balance that must be met to fully understand this illness: the need to see GWS as part of larger phenomenon must be tempered with an understanding of it as a unique illness expression.

Health Scares: from MMR to Post-Nuptial Syndrome¹

An important way of disseminating health information and expressing anxieties about health are in the form of rumours and gossip, often linked with media reporting. The media picks up such stories and circulates them, both reflecting cultural anxieties and intensifying them. GWS remains a focus of media attention and stories continue to circulate about this illness at many sites. White (2000) investigates rumours in post colonial Africa to investigate the world rumours and gossip reveal. She found that vampires provided a powerful way for Africans to talk about ideas and relationships that begged description. The premise in White's work is that "people do not speak with the truth, with a concept of the accurate description of what they saw, to say what they mean, but they construct and repeat stories that carry the values and meanings that most forcibly

¹ This 'syndrome' received attention for a few months. It is described as the depression, fatigue, and dissatisfaction which sometimes occurs after the excitement of a wedding is over and the bride returns to 'normal life'.

get their points across. People do not always speak from experience- even when that is considered the most accurate kind of information, but speak with stories that circulate to explain what happened” (2000:30).

The circulating stories aid people to understand what had previously been incomprehensible. People fit their experience into these stories. Rumours and stories help them to make sense of their experience. White has made a similar case for North American UFO abduction narratives which, she argues, debate race, reproduction, the role of women in childcare, and abortion. White suggests that it “is not that there are no other places where these issues can be talked about in contemporary American society, but that they are considered so important that they are spoken of at many sites” (2000:29). I think such a reading can aid us in looking at GWS and health scares and the repetitive themes we see in them.

It would seem that every day there are media stories about the latest health scare. More and more media reports suggest that you may be suffering from a range of conditions. Worryingly, many suggest that you may be suffering from sinister conditions, yet remain oblivious and symptom free: “Illnesses you didn’t know you have,” as one headline implied. It would seem that everyone is ill, and these stories suggest you need a series of tests to uncover these unknown conditions.² During my fieldwork I began to notice that media reports focused on the idea that you can be ill and not know it. Even the absence of discernible symptoms did not necessarily point to well-being. Such stories focused on the need to uncover dormant illness, reflecting the veterans’ assertion that each individual has unique, dormant and opportunistic risks which lie in wait. Health scares tend to gain hold because they hit on present fears. The ongoing panic created by the MMR vaccine took hold, in part, because it touched on an already increasing anxiety about vaccinations present in the UK.

The way in which GWS is talked about and portrayed is similar to the alarmist health stories one so often sees. Following White, I would suggest that the issues contained in

GWS are so important that they are spoken about in a variety of ways across a variety of sites. GWS is about much more than itself: people talk about it and are concerned with it. The stories about GWS continue to circulate: it is a potent package that allows people to talk about the matters that are important to them and helps them to make sense of their experience.

RISK AND VULNERABILITY

As was discussed in previous chapters, veterans see the world as full of risk. Acting in accordance with the Euro-American worldview, they are likely to view symptoms as pathological and interpret them medically. The popular belief is that the physical world is a potentially hostile and toxic place that erodes health and wellbeing. Linked to this health anxiety are a general sense of uncertainty and a mistrust of science and scientists. GWS should be seen against the backdrop of increasing anxiety about health and a heightened link between identity and the body which we find in the present cultural milieu.

The “‘objects’ of scientization also become the subjects of it, in the sense that they can and must actively manipulate the heterogeneous supply of scientific interpretations” (Beck 1991:157). This questioning of science and the accompanying process of picking and choosing from available scientific information has been shown to characterize GWS. Yet this process can be seen as characteristic of the larger society in which GWS emerged. There is no scientific monopoly on discussions of risk as there is rarely expert agreement on what constitutes a risk, and how it might be managed. As a result, public uncertainty increases as does criticism. Think of the MMR debate which emerged due, in part, to conflicting notions of risk within the scientific community and an accompanying mistrust of doctors, scientists and the government. Knowledge is contested between lay and scientists, but also between scientists. People are increasingly skeptical of what scientists have to say and use their own experiences or those around them to fill in the gaps. In new illness movements it is the sufferer themselves who are seen as the expert. They are experts by the nature of their experience. As Shorter (1992) noted, the theme of

² This line of thinking arose from conversations I had with Claire Dyson and Simon Cohn.

medical incompetence and indifference runs through the CFS movement “which elevates the patients’ subjective knowledge of their bodies to the same status as the doctors’ objective knowledge. This presumption of privileged self- knowledge of one’s body dovetails perfectly with media marketing strategies” (p. 317).

New illness movements such as CFS and GWS offer a set of systemic critiques, or critiques of the biomedical system, so that sufferers can make sense of their personal histories of seemingly haphazard troubles (Dumit submitted). The networks also “continually *experiment* with and offer new forms of social relationships for sufferers and the public at large to inhabit: these include the idea of illness as a lifestyle... which requires cultural respect for differences caused by otherwise invisible illnesses. Other relationships include the notion of the patient as an expert, as a survivor, and as a communicator ” (Dumit forthcoming:16).

Health and Risk

What are Americans afraid of? Nothing much except the food they eat, the water they drink, the air they breathe, the land they live on, and the energy they use. In the amazingly short space of fifteen to twenty years, confidence about the physical world has turned to doubt, once the source of safety, science and technology has become the source of risk (Douglas and Wildavsky 1982:10).

Douglas and Wildavsky ask why is it that when life is safer and life expectancy has increased are people more focused on risk?

The centrality of issues of risk and who are responsible for them is an important factor in understanding the wider culture which gave rise to GWS. Linked to this is the paradox of health where although people are healthier than they ever have been, with fewer risks to their health, they are more likely to feel ill and anxious about their well-being. In the Euro-American context, we are more likely to pay attention to benign symptoms and see them as arising from occult causes. Because we are more likely to pay attention to and worry about symptoms, we actively seek explanations for them.

The explanations generally advanced are located in the environment in the form of toxins, viruses and chemicals. Doctors are commonly visited by patients with symptoms and conditions that are attributed by the sufferer to deficiencies in their immune system. Associated with this focus on health is that we are witnessing an ever-more intimate connection between health, identity and the self. We see the body as the locus of the self and treat it accordingly. Illnesses and the movements that appear around them, are entwined with identity. GWS has become a lifestyle for many of its sufferers, defining who they are and how they live their lives. Illness provides a way to make sense of life events and allows one to develop an effective and robust identity. It contributes a kind of biographical kit to interpret past, present and future events. Illness movements provide templates for meta-narratives which enable sufferers to link apparently disparate experiences together into one, sweeping explanation. They give us the sense that everything is connected and explainable and that someone else is to blame; here we see resonance with Azande witchcraft beliefs outlined earlier. GWS and its movement creates a sense of order out of an experience of chaos and unravelling. It makes the incoherent coherent.

People are increasingly bothered by, aware of, and disabled by distress and discomforts that in the past were deemed less important and less worthy of medical attention. There appears to be a progressive decline in our threshold and tolerance for mild and self-limited ailments. Society's "heightened consciousness of health has led to greater self-scrutiny and an amplified awareness of bodily symptoms and feelings of illness" whilst the widespread "commercialization of health and the increasing focus on health issues in the media have created a climate of apprehension, insecurity, and alarm about disease" (Barsky 1988:414). GWS and other new illnesses "often assume prominence in the mass communications media and public consciousness before their scientific dimensions have been established" (Barsky and Borus 1995:1932). It would seem that every day life is saturated with anxiety about the world around us. Every day there is another health scare about which to worry.

GWS and Functional Somatic Syndromes

This cultural trend of an increased sensitivity to bodily signals has resulted in the construction of new illnesses, labeled 'medically unexplained' or 'functional somatic syndromes' (Wessely et al 1999a, Shorter 1992) whose scientific status and medical basis remain unclear. This group of new and contested illnesses include: ME/CFS, total allergy syndrome, MCS, IBS, GWS, fibromyalgia, and sick building syndrome. Wessely (Wessely et al. 1999a) situates GWS squarely with other 'functional somatic syndromes' as do Barsky and Borus (1995). There is considerable overlap in the narratives and the symptoms of these various disorders (Wessely et al. 1999a). This commonality points to the possibility that the existence of each disorder is itself illustrative of a particular cultural movement.

GWS shares with other new illness movements relevant characteristics which reflect cultural themes and anxieties. As mentioned previously, there is a general sense that the outer environment is toxic and hostile and that body boundaries are vulnerable to these threats to health. There is a kind of fluidity between the outside environment and the body. But there is a protection against dangers: the immune system. The immune system is seen as a central organizing feature of most of these new illnesses. The past decade has witnessed the immune system gathering increased prominence in public discourse about health and is generally seen as being weakened by modern stresses, food and pollutants. The relative strength of the immune system is popularly seen as providing the key to avoiding many illnesses. Themes of bodily vulnerability in the face of ever-present risk are at the heart of CFS, MCS and other new illness discourses. Similarly, GWS shares with other new illnesses the central notion of overload or over-challenged in the face of twenty-first century life. The immune system giving way under the strains of modern living is central to CFS and MCS theories of illness.

The emphasis in immunology is on flexibility and adaptability, but veterans suggest that their body was in the end unable to respond to the sheer demands of flexibility upon it. When veterans talk about their immune system as being damaged and degraded they are also talking about their position in the world. Different illnesses, symptoms, and

experiences can be brought together by way of the immune system and defined as a single disease category. Each person is seen as an individual, yet the social and community aspect of the illness remained central. The immune system provides an inclusive and flexible system which can incorporate infinite variations.

Dumit (forthcoming) suggests contested illnesses such as GWS and CFS are causally undetermined: their etiology is contested as to social, genetic, toxic and personal possibilities. Although their nature is contested, sufferers and advocates maintain an unfaltering conviction as to their nature. As was discussed in Chapter Six, the GWS movement is characterized by a vehement denial that sufferer's physical distress arises out of PTSD or other psychological problems. GWS shares with other new illness movements a reliance on biological explanation and a vehement drive to prove the biological, physical nature of the illness. Despite the increasing use of psychological explanations in popular discourse, it is clear that psychological illness and distress remain highly stigmatized. This stigma is associated with the bias in biomedicine where there continues to be a dichotomy between mind and body where illnesses are seen to arise from one or the other. Importantly, physical illness is seen as more real and important whilst psychological illness is seen as imaginary. Medicalization is instigated by the sufferers themselves; but it is a particular kind of medicalization, linked to the strong anti-psychiatry position of these illness movements.

Linked to their conviction that their illness is physical, they focus on the tools of medical science to uncover its mystery. These illness movements are characterized by analogies of struggle and injustice. CFS and GWS literature remains highly critical of medicine and doctors, but it also espouses an extreme faith in the absolute success of medical science in unlocking the enigma of GWS. Shorter (1995) notes physicians are frequently described as "heartless ignoramuses, blinkered in the cul-de-sac of mainline medicine." In the GWS movement, doctors and scientists are valorized as excellent if their conclusions support the cause, yet demonized if they refute the presence of GWS. Doctors, however, remain the gatekeepers and veterans maintain an adamant belief in the power of medicine. Such movements attack medical authority at the same time as they desire its

approval (Aronwitz 1992). Thus, veterans demand more and more tests believing that one such test will eventually reveal the physical nature and cause of their suffering. They demand to be the object of medical science. In discussing these new illnesses, Dumit (submitted) argues that they arise as they do out of a situation where suffering has been collapsed onto medical care. If you are suffering, then you are in need of medical care, “if you then can’t get medical care or insurance or disability, then there is an assumption that you probably aren’t really sick and you probably aren’t really suffering.... It points, perhaps, to a cultural situation where we have become dependent on the verification of suffering by third parties” (p.5).

THE MEDICALIZATION OF LIFE

The “progressive medicalization of daily life has brought unrealistic expectations of cure that make untreatable infirmities and unavoidable ailments seem even worse” (Barsky 1988:414). On writing about the increase in medically unexplained syndromes, Barsky and Borus (1995) suggested that the processes of somatization and medicalization reinforce one another. The tendency to conceptualize medical problems in biological terms is powerful, and medical practitioners are often reluctant to explore the non-biological aspects of a patient’s case. Patients respond to the cues offered by health professionals and are themselves part of a culture that continues to stigmatise mentally ill people and those with emotional problems.

As a result of this “potential stigma, patients are naturally eager to avoid psychiatric labeling and seek a medical or other external, environmental explanation for their distress” (Kirmayer 1999: 274). And they use a variety of strategies to avoid psychiatric labeling. Cultural idioms of distress may make specific somatic symptoms or illness attributions highly salient and, in conjunction with the widespread stigmatization of emotional conflict and psychiatric illness, lead individuals to de-emphasize or suppress the emotional component of their distress and avoid psychological attributions (Fabrega 1991). The structure of the health care system plays an important role in defining what symptoms or problems are appropriate to take to the doctor who, in most places, is likely to be a primary care provider with limited time for, or interest in, mental health problems.

Patients with medically unexplained somatic syndromes are often convinced that they have a specific occult disease and therefore arrive in the physician's office with an explanatory model for their symptom: a self diagnosis (Stewart 1990). The process of labelling themselves often involves communication with other sufferers, Internet searches or media stories. Others "are apparently re-labeling preexisting bodily distress as a disease and seeking medical attention because of this new cognitive understanding of an old symptom. Thus, medicalization stimulates somatization by amplifying preexisting, benign discomfort, supplying a new disease attribution for it, and ushering these individuals into the medical care system" (Barsky and Borus 1995: 1932).

Most often within the medical system, sufferers of these medically unexplained conditions are thought to be somatizing. The medical reading of somatizing patients is that they are attributing bodily complaints assumed to arise from psychological disturbance to organic disease (Bass and Murphy 1996:103). Generally, then, somatization in psychiatry/ medicine is seen as the expression of psychological/ emotional problems in terms of bodily complaints. Goldberg & Bridges (1988), for example, argue that somatization is a route through which people unsympathetic to psychological illness can enter the sick role while psychologically distressed.

THE APPROACH OF ANTHROPOLOGY

Whereas biomedical interpretations of GWS rest on the presumption that it is an expression of psychiatric disturbance; anthropologists have shown that somatization need not be limited to expressions of psychiatric distress, indeed, it may not always represent pathology or even maladaptation. Anthropologists, however, have struggled with the notion of somatization; a struggle which is largely due to the explanatory power the theory of somatization holds. As Trimble (1982) has pointed out, the term 'somatization' is now used indiscriminately in patients' notes as if it were an end to the diagnostic process. Its use assumes that everyone, except the patient, understands what the cause of the symptoms is. The word is doubly unfortunate because it not only suggests a unitary aetiology where none exists, but also perpetuates the 'either/or', 'organic versus

psychological' dichotomy in medicine (Bass 1990). Somatization is used as though it is an explanation in and of itself. It often represents the end of the search for explanation. Furthermore, anthropologists try to avoid the implication that somatization is a psychological process, but this is often difficult. This thesis shows that concluding that GWS is somatization is simply not good enough. Instead, one must examine the specifics and the way in which GWS is an expression of particular beliefs and experiences.

Anthropology and somatization

As a result of the mind/body dualism that pervades medicine, any bodily expressions of emotional distress have been attributed to the specific psychological mechanism of "somatization" (Kirmayer and Robbins 1991). As mentioned in the first chapter, there are a number of problems with the medical interpretation of these contested illnesses as a form of somatization, which we can see reflected in 'Position B' (Table 1) of the Gulf War debate. Firstly, it does exactly what veterans and sufferers of similar illnesses are trying to avoid: defining the illness as psychological. It simply does not resonate with their experience and does not enable them to make sense of it.

Anthropologists' work on somatization has focused on the way in which it is the predominant expression of mental illness in the non-Western world; but they have begun to look at the way it is also common in the West. As the Kleinmans (1985) noted, from the cross-cultural perspective, it is not somatization but psychologization in the West that appears unusual and requires explanation. Anthropologists have pointed out that the term "somatization" turns the "ambiguity and uncertainty of medically unexplained symptoms into the presumptive clarity of a distinct form of psychopathology" (Kirmayer 1999: 272). Kirmayer suggests that any "serious analysis of the problem should probably begin by reversing this rhetorical move and turning 'somatization' back into its 'raw observable': medically unexplained symptoms" (1999:272). Furthermore, the author suggests that when reduced simply to symptoms of a disorder the meaningful and social dimension of distress may be lost.

Scheper-Hughes and Lock (1987:30) have called for a major theoretical synthesis: “the development of a new epistemology and metaphysics of the mindful body and of the emotional, social, and political sources of illness and healing.” Somatic symptoms have been variously described as ‘communicative acts’ (Kirmayer 1984) and ‘coded messages’ (Racy 1980), whereby the individual, having troubles in various areas of life, conveys these in bodily terms. That is to say, physical symptoms can be seen as part of a process of making meaning out of experience. The body is a site of angst and resistance. GWS can be interpreted as the expression of a collective social angst and is a kind of shared bodily language, an expression of social distress as well as a form of commentary. It is both personal and social. Part of my work focuses on the symptoms themselves in order to see what they may be expressing.

Illness behavior “in acute or subacute somatization may become prolonged and eventually frozen into a long-term sick role in which complaining about bodily symptoms and preoccupation with illness form a central part of one’s everyday behavior and means of dealing with other people, as in chronic pain syndrome” (Kleinman and Kleinman 1985:473). Alternatively, “chronic somatization sometimes occurs in the absence of any medical or psychiatric disorder as a habitual coping style or idiom of distress” (Kleinman and Kleinman 1985:473). Altered social relationships and economic benefits are the “social gains” that reinforce psychobiological processes and maintain illness behavior in the ways described.

Conversion symptoms can be understood as protests of the powerless against intolerable social circumstances (Weller 1988). In her research into CFS, Ware (1993) found that accounts given by the interviewees of their lives in the months or years before the onset of CFS overflow with references to how active, how busy, how involved in *life* they were at the time and how difficult they found it to say ‘no’. The result, she argued, is a kind of ‘cult of busyness’ (Salzman 1991), an exhausting lifestyle brought on, as one individual put it, by ‘overdoing, overworking, over-trying-to-please-everybody, and just doing everything’. The life histories Ware recorded contained evidence of considerable distress, “negative life events in the form of serious injury, divorce, job loss, and/or death

of a family member or close friend were reported as occurring before the onset of CFS by a large proportion of the sample” (Ware 1993:65). Similarly, GWS sufferers often reported a series of negative life events which are then re-interpreted and organized together as linked to GWS.

Abbey & Garfinkel (1991) have noted the parallels between the rapid social change and increasing life pace that surrounded the rise of neurasthenia in 19th Century US society and the emergence of CFS in recent years. Ware’s work (1993) contributes to such a reading by showing that there appears to be an empirical association between CFS and a stressful, fast-paced lifestyle. Her research further suggests that people who develop CFS may oversubscribe to such a notion of constant exhaustion as a way of life. GWS could be interpreted in a similar way: where sufferers oversubscribe to the notion of success as physical excellence, fitness, and masculinity.

The process of medicalization, when a sufferer seeks to become a patient, may also constitute a means of coping with suffering through the construction of a narrative to make sense out of chaotic life events which threaten one’s sense of self integrity (Cassel 1982). Furthermore, anthropologists draw attention to the more collective aspect of symptoms and symptom language. Anthropologists look at these illnesses as examples of “idioms of distress” (Nichter 1981) and point out the way that somatic symptoms are the most expression of social problems and emotional distress (Kirmayer and Young 1988). In anthropology, illnesses are seen as an organizing feature, a way to make sense of life events and distress.

Science treats “the gray or fuzzy facts as if they were the black-white facts of math” even though no one has ever found a single fact about the world that was 100 percent true or 100 percent false (Kosko 1994: Xv). Yet in our language, science, math, logic, culture we have assumed a world of black and whites. As Bertrand Russel said, everything is vague to a degree you do not realize until you have tried to make it precise (1972). An anthropological approach is an attempt to move away from traditional thinking which force illnesses into the either or category. There is a need to see illnesses not as either

psychiatric or physical, but to complicate and contextualize by introducing the social and the cultural forces which help to produce such illnesses. By showing illness in context we are able to see that GWS and other contested illnesses cannot be fully understood by explaining them as a form of somatizing: of expressing psychological distress by way of physical symptoms. Nor is it helpful to suggest that they are the result of purely biological processes. Instead, we should see illnesses as a way to express and talk about issues relevant to those it affects. Illness and talking about illness are a means to work out and make sense of life's conundrums.

An anthropological reading of GWS looks at the way in which it is wider than issues contained in the Gulf War. Illness symptoms can be read as "coded metaphors that speak to the contradictory aspects of social life, expressing the feelings, sentiments, and ideas that must otherwise be kept hidden" (Scheper-Hughes and Lock 1986:138-139). Somatizing metaphors are often the way that distress is expressed. The "individual body should be seen as the most immediate, the proximate terrain where social truths and social contradictions are played out, as well as a locus of personal and social resistance, creativity, and struggle" (Scheper-Hughes and Lock 1987:31).

Metaphor arises out of embodied experience, but it also becomes embodied. We can interpret GWS symptom reporting as a vehicle to draw attention to and a means to communicate concerns of the people it affects; issues such as trust, life within a dramatically changing military, gender roles and toxicity. GWS can be interpreted as an expression, both social and personal, of the life-worlds of those it affects and of contemporary issues.

It is necessary to see acknowledge that GWS shares many characteristics with other emergent illnesses. By looking at the wider context we can shed light on GWS, but there is a danger of generalizing. Wessely (et al 1999a), Showalter (1997a), Barsky and Borus (1995a) amongst others lump all of these illnesses (GWS, MCS, IBS, CFS) together as one phenomenon, but by so doing they incorrectly suggest that they are interchangeable and are the expressions of the same experiences. By grouping them together as

manifestations of the same thing the way each of these conditions is unique and responds to different issues is ignored. Such an analysis overlooks the differences between these very diverse illnesses and by so doing lacks a real understanding of the conditions themselves and the unique factors which gives rise to them.

This thesis is a response to this attempt to explain GWS through generalizing. Although I think it necessary to contextualize GWS through situating amongst its sister illnesses, this is not the end of the process of explanation. Instead, more is needed. This thesis has focused on this additional perspective and has shown then need to bring back the specific. If we take GWS as a real illness and take the individual suffering of the veterans as real, then the particular must be examined. It is for this reason that I have approached GWS from the perspective of anthropology. An anthropological approach is important to the study of this illness because it enables one to explore the nuances and subtleties which are so central to the illness: it is these complexities that make the illness unique. The illness may not be specific in the medical discourse, but for the anthropologist the particulars are central.

GWS is reflective of the culture in which it is found: both that of military culture and the wider culture of twentieth-first century Britain. As a mechanism to make sense of life events and misfortunes of a specific group, this illness, however, is unique. It responds to and expresses issues of contagion and loss of masculinity which dominated these men and women's experience. Issues of confidence in authority, gender roles, blurred boundaries, notions of trust and the ideas of conspiracy are significant themes emerging from GWS narratives; fed by veterans' experiences of a changing military and of the war itself. By studying GWS and the lives of those it affects social concerns and anxieties are illuminated.

CONCLUSIONS

These men and women are ill and suffering; of this I have no doubt. I hope the reader will take away from this work the very real sense of the distress of these people. Their bodies ache, they are constantly fatigued and life feels like a constant struggle. Memories

evade them. Their lives have been irreducibly damaged. Their children are growing up with fathers who sometimes cannot get off the couch to play with them. Wives complain that their men are impotent, irritable shells of their former selves. They simply are not the men they were. Yet despite the weakness they exhibit and express, they are angry. Frustration and anger are a constant presence in their lives. Fierce words are exchanged: the MoD is a malevolent force who purposely poisoned them; doctors and scientists are deceitful liars; and the general public do not care. Sometimes the rage is frightening.

What makes a discussion of GWS so compelling is that the suffering continues. Veterans are still suffering and their struggle for recognition continues. News stories about GWS are still common occurrences, reflecting the continued public interest and investment in the subject. It is an illness still being constructed and moulded as it incorporates contemporary issues as they surface. Thus, I have read accounts of people who believes they are suffering from GWS as a result of the September 11 2001 attacks on New York: “post-WTC syndrome”. GWS is a vehicle to discuss and convey cultural anxieties and beliefs.

During the writing of this manuscript I fretted about the way in which my informants would receive it. How would Steve, who drank to forget his memories and his worry about dying young and leaving his young girls, feel if and when he read this work? Would my findings negatively impact on Bob, who was once again going before the War Pensions Tribunal for his impotence, marriage problems, fatigue and anger? Over this I struggled, but the interpretation contained in these pages is only that: an interpretation. It is my interpretation based on what I heard and observed during my fieldwork. In a sense, just as they created narratives to make sense of their experiences and sense of disruption, I created this, however jumbled narrative. This manuscript is my attempt to make sense of their stories.

Although I acknowledge their distress and the way it is felt in their joints, their stomachs and the rest of their bodies, I believe such suffering is added to significantly by their feelings of being ignored and dismissed. I think that part of their suffering arises out of

the way they have chosen or been forced to think of, experience and frame their illness. The focus on the physical cause and physical nature of their disorder may contribute to their frustration. Part of this is the result of the way the GWS debate has been divided between those that think it is real and physical and those that think it is psychological. I hope that this thesis reveals we all, veterans included, must think beyond such mind body dualism in order for any real progress to be made.

Veterans are expressing very real distress and they are doing so through their bodies. Their symptoms are a kind of language. For, “sickness is not just an isolated event, not an unfortunate brush with nature. It is a form of communication through which nature, society and culture speak spontaneously. The individual body is the most immediate, proximate terrain where social truths and contradictions are played out” (Scheper-Hughes and Lock 1987). Veterans are embodying their experience of being redundant and being unmanned. Their symptoms and the way they talk about them suggest that their bodies are making sense of the experience of falling short of an idealized and structured masculinity.

It is crucial that illnesses like GWS be better understood in order to move towards a phase of recovery for the veterans. This is particularly relevant as we are now facing the almost inevitable beginnings of a related illness which will emerge from the recent war in Iraq. Indeed, as I write the first few veterans of that conflict have come forward complaining of physical and psychological symptoms. GWS represents a range of changes to previous combat syndromes which will likely become greater and more applicable to an ever-widening group of people. Given the present milieu with increasingly blurred boundaries between civilian and military, war and peace with its accompanying anxiety about terrorism; it is likely that the template of post-combat syndromes will be increasingly accessed to make sense of illness experiences.³

³ These ideas were developed out of ongoing conversations with Simon Cohn.

APPENDIX ONE: SYMPTOM LIST

Chronic Fatigue Syndrome	Paralysis of eye muscle	Poor hygiene
Irritable Bowel Syndrome	Paralysis of face muscle	Violence
Multiple Chemical Sensitivity	Glandular swelling	Blackouts
Fibromyalgia	Sensitivity to sunlight	Poor coordination
Headache	Nose bleeds	Clumsiness
Frequent urination	Tiredness/ fatigue	Nightmares
Difficulty in Urinating	Bad sleep patterns	Irritability
Joint swelling	Low libido	Mood swings
Joint pains	Abnormal blood tests	Loss of appetite
Cracking joints	Palpitations	Anxiety
Muscular pain	Pains in tendons	Stress
Pins and needles in fingers/ toes	Sinus problems	Paranoia
Bleeding gums	Spinal disk disease	Depression
Rashes	Hair loss	Agoraphobia
Ulcers	Kidney disease	Lack of self-esteem
Constipation	Deafness	Lack of confidence
Diarrhoea	Menstrual problems	Adultery
Stomach pains/problems	Vaginal cancer	Marriage problems
Memory loss	Cancer	Criminal activity
Miscarriage	Burning Semen Syndrome	Substance abuse
Birth deformities	Thrush	Feelings of déjà vu
Persistent infections	Viral illness	Lack of motivation
Abnormal liver function test	Sickness	Lack of concentration
Asthma	Dizzy spells	Poor self-awareness
Chest pain	Motor neurone disease	Night sweats
Respiratory problems	Bad eyesight	Short temper
Weight loss	Epilepsy	
Weight gain	Feelings of loss of time	

Source: various information sheets from Gulf veterans' associations

APPENDIX TWO: FREQUENCY OF SYMPTOMS AMONGST INFORMANTS**Total 40 (40 of 45 sufferers listed their symptoms)**

MOOD SWINGS	20	PTSD	19
MEMORY PROBLEMS	18	DEPRESSION	18
JOINT PAIN	15	CFS	13
FATIGUE	13	RASH/SKIN	11
CHEST/ BREATHING PROBLEMS	10	PERSONALITY CHANGE	9
IBS	10	ANGER/VIOLENCE	8
STOMACH PROBS	8	FIBROMYALGIA	8
UNCO-ORDINATED	8	DIARRHEA/ BOWEL	7
NUMBNESS/TINGLING	7	SWEATING	7
LOW LIBIDO	6	IRRITABLE	6
HEADACHE	6	BLADDER PROBS	5
KIDNEY/ LIVER	5	IMMUNE SYSTEM PROBLEMS	5
BLEEDING GUMS	5	ARTHRITIS	4
NIGHTMARES	4	IMPOTENCE	4
RECTAL BLEED	4	WEIGHT GAIN	3
LIGHT SENSITIVE	3	STRESS	2
SUICIDE ATTEMPT	2	MARRIAGE PROBLEMS	2
INFERTILITY/ SPERM	2	WEIGHT LOSS	2
ALLERGY/ MCS	2	HAIR LOSS	2
ASTHMA	2	MS	2
SLEEP PROBS	2	EB VIRUS	1
OSTEOPEROSIS	1	BSS	1

APPENDIX THREE: INTERVIEW NUMBERS

TOTAL INTERVIEWS	93
Veteran numbers	67 UK 8 Canadians
Wives/ partners individually interviewed¹	4
'Experts'/ advocates interviewed	14
GVMAP assessments observed	18
Veteran focus groups	3

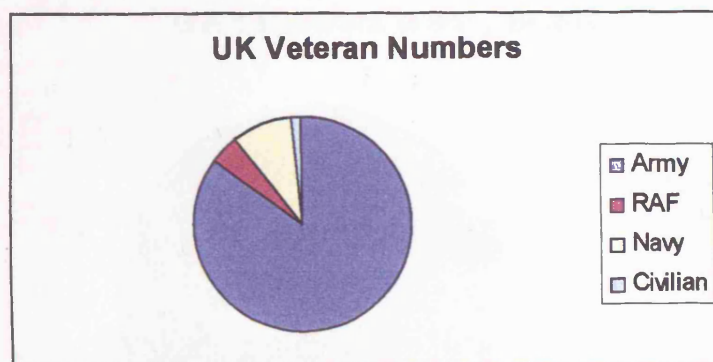
¹ This number does not include other family members and partners were more causal informants.

APPENDIX FOUR: UK VETERANS QUANTITATIVE INFORMATION

VETERANS INTERVIEWED (67): BRANCH OF SERVICE

Army	57
RAF	3
Navy	6
Civilian	1

Figure 4: Informants' Branch of Service



HEALTH STATUS OF THOSE INTERVIEWED (67)

Not ill ²	19
Ill but not with GWS	3
GWS sufferers	45

JOB WHILST IN THE GULF WAR (38 of 45 sufferers listed job)

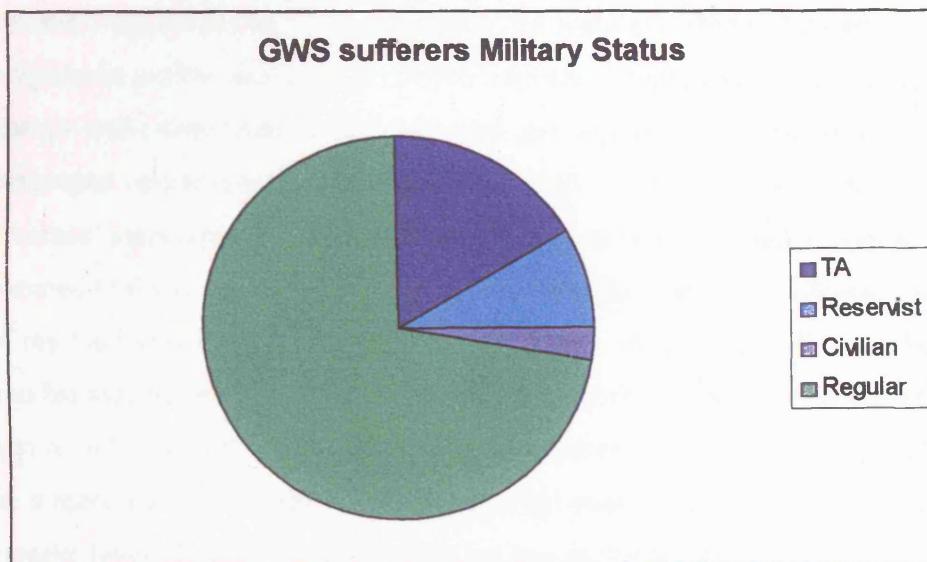
Non-deployed	7
Support services	26
medical (nurse, operating technician)	11
chef	2
other (clerk, driver)	11
aircrew	2
Combat support (i.e. engineer)	2
Combat ('Teeth')	3
infantry	2
cavalry	1

² Includes people who have some symptoms, but do not consider themselves as having GWS. May have some symptoms that they think may have been caused by Gulf, but unsure.

Military Status (36 Listed status)

6 TA
3 Reservist
26 Regular
1 Civilian

Figure 5: Military Status of sufferer informants



APPENDICES 5-8: FIELDWORK PROCESS AND METHODS

APPENDIX 5: SUPPORT GROUPS

In order to explore the construction of GWS more fully and assess if, and how knowledge, information, practices and language concerning GWS are mediated, appropriated and transformed; I planned to include selected non-medical sites, namely veterans' organisations. In the context of the GWS movement these groups have gained a heightened profile, as sources of public information/support or as lobbying or pressure groups in the process of raising awareness and legitimising or opposing medical discourses on the subject. I began my fieldwork by contacting the RBL, the main UK veterans' association as well as the two main Gulf veterans' associations in the UK. I had planned to focus mainly on one association and events led to my choice. During the time of my fieldwork Ken, the head of one association, became quite ill with a heart condition and his association was relatively stagnant. The other association, however, remained active and I centred my research on this association. I focused on the NGVFA in order to do a more situational analysis and in order to better contextualize the narrative on the smaller level. Initially I had hoped to use one of the offices of one of the veterans' organizations as a main research site, yet I soon realized that this would not be possible or entirely fruitful.

5:1 The Royal British Legion

There are a number of veterans' organisations in the UK. The Royal British Legion³ (RBL) is perhaps the largest and best known, mainly through its annual poppy appeal. When I began my fieldwork I made contact with the RBL, but was aware that they would not be my main focus. For, although they have been involved in the GWS discussion, they do not specifically focus on the illness. The RBL maintains an interest in GWS and hosts quarterly meetings and fact-finding visits to the United States. This "multi-disciplinary group is designed to give Gulf War veterans a credible and independent

³ The RBL is a totally independent organization that raises roughly 50 million pounds a year through fund raising, including the annual poppy appeal. The Legion was established in 1921 when the various organization created after WWI amalgamated. Any ex-service man or woman can approach the Legion for support and they deal with approximately 300 000 cases per year (Terry English, personal communication). The RBL deals with veterans of all wars and handles issues concerning health, pensions and a range of social issues.

platform from which to express their views in an authoritative manner” (Jones 1999b:68). ‘The RBL Gulf Group Meeting’ brings together veterans, scientists, doctors, MPs and advocates. During my fieldwork the RBL also organized and hosted a two-day US Congressional meeting at the House of Lords to discuss GWS and raise the profile of the illness.

A number of wars in history have produced similar pressure groups. A recent paper by Jones (1999b) explored how veterans’ groups have responded to health concerns and incorporated them into their demands. Some conflicts, like WWII, did not witness the formation of pressure groups (Jones 1999b)⁴; more recent campaigns, such as the Falklands and The Gulf War have seen, once again, veterans’ associations developing a focus on health (Jones 1999b). The pressure groups set up in the UK following the Gulf War have much in common with the veterans’ movement that flourished in the United States in the aftermath of the Vietnam conflict than their WWI counterparts. During the 1970s, ex-servicemen in the US pressured the government to investigate Agent Orange, a herbicide or defoliant used to destroy jungle vegetation that provided cover for guerilla warfare. The Vietnam veterans believed that exposure to the chemical had caused a variety of symptoms including rash, tumours, headaches, numbness in extremities, depression and diseases including cancer (Bourke 1996:59. Vietnam veterans were successful in raising the profile of their groups as well as securing financial benefits and treatment programmes.⁵

Similar to the Vietnam groups, the UK associations have focused on the issue of health and sought financial compensation for perceived disability. Secondary demands involved provisions for clinical treatment and an investigation into GWS. However, whilst the various Gulf veterans groups in the UK “have achieved wide publicity for Gulf War Syndrome and for the many hypotheses advanced to explain its cause, they themselves

⁴ Jones (1999b) argues that this lack of WWII organizations is due to the change in the way pensions and benefits were allocated. In August 1943 the burden of proof was transferred from the soldier to the government so that claims were presumed to succeed unless the Ministry could demonstrate otherwise. As a result, large numbers of pensions for functional disorders that had been aggravated by war service were granted. Secondly, a greater awareness of psychological factors sometimes led to greater attention being paid to the well being of the troops. Thirdly, veterans largely returned to paid work.

⁵ Although the biomedical research into effects of Agent Orange on health remains inconclusive.

have not become well-known organisations. Press interest has focused on the disorder and individual sufferers rather than the bodies campaigning for veterans' issues" (Jones 1999b:74). Jones sees the comparative weakness of these bodies as related to their tendency to fracture into sub-groups and their small scale, something which I witnessed during my fieldwork. Furthermore, he suggests they lack the publicity and lobbying skills that other, more established groups like the American Legion maintain. Although the "Gulf Veterans Association claims a membership of 2000, it appears that they lack the financial resources and numbers to mount a major campaign in the press and parliament. Like their First World War counterparts, the various groups have been unable to find a common aim and strategy so that their efforts have become diffused" (Jones 1999b:75).

Although originally there was one Gulf veterans' association, internal disagreements led to a splinter group being formed, the NGVFA. At present, the GVA and the NGVFA are not in contact and consider each other with mistrust. Despite the separation between the groups, however, many veterans remained members of both. The GVA is the more respected of the two and has been involved more readily by the government and MoD groups. The NGVFA has been seen as more political and radical; however the way it was viewed was undergoing some changes, with the association representatives being invited to take part in the RBL Gulf Group meetings.

5:2 The Gulf Veterans' Association

At a gathering held at Cramlington, Northumberland, in November 1994, the Gulf Veterans' Association (GVA) was formed and today claims a membership of 2,000 (Jones 1999b:67). The RBL has served a valuable role in focusing and uniting these groups. In April 1998, the GVA, VetNet and the Middle East 68 Forces Veterans Association⁶ agreed to form a Gulf Veterans Royal British Legion Branch (GVB RBL) with a national network. It is based in Newcastle-upon-Tyne, where the GVB RBL and the GVA share premises, and has sub-branches in Wales and Northern Ireland (Jones 1999b:68). Flt Lt John Nichol, the ex-RAF navigator who was captured and tortured by

⁶ Originally a comrades organisation set up by ex-servicemen from the Second World War who took an interest in Gulf War veterans because both they same battlefields.

Saddam Hussein's forces in the Gulf War, was elected president of the GVB. The NGVFA refused to join the GVB, remaining at odds with the Ministry of Defence.

As a result of their connection with the RBL, the GVA is more respected than other groups. As mentioned above, they were a regular member of the RBL Gulf Group which met quarterly to discuss Gulf-related issues. The GVA had a history of an ambivalent relationship with the Ministry of Defence (MoD), but when I met with the chairman at the outset of my fieldwork he reported that the relationship had been much improved in recent months. GVA leaders reported that their group was better at dealing with the MoD than other groups. "We have experiences of being in the forces so we are always one step ahead": by saying this, the leaders were pointing out that they had been a regular soldiers, whereas the leaders of the other main veteran's association were mainly Territorial Army (TA) soldiers. TA soldiers are a part-time volunteer reserve force and are often looked down upon by regular soldiers. These soldiers often have other careers and are required to commit to 30 days: usually one evening a week, one weekend a month and two weeks a year. Importantly, they are in between civilian and military. I was told that the NGVFA had once been part of the GVA, but they had split off because they felt his group was not aggressive enough.

One of the most well-known and early activities of the GVA was a 1998 march on Whitehall. Veterans from all over the country traveled down to London to march and hand back their medals in protest. Another important ritual conducted by the GVA was taking part in the Remembrance Day ceremonies. During the early days of my fieldwork I was invited to meet the leaders of the GVA when they came down to London to take part in the Remembrance Day activities. I went with them as they lay crosses in the lawn in front of Westminster Abbey. The crosses represented every veteran from the Gulf War who had died in the war and who had died "as a result of the war." This is an important difference with the crosses representing the fallen for other wars. As the other crosses were placed in the grass it was clear that each cross represented those who had died in combat. The Gulf War section was different in that they had a cross for those who died

in combat but also for those who died after the war from illness linked to the Gulf exposures.

5:3 The National Gulf Veterans' and Families Association

The NGVFA based in Hull, split from the GVA to begin its own pressure group. The NGVFA publishes a newsletter, *The Oasis Times*, and claims a national membership of 2,000. VetNet, with a membership of around 300, is closely linked to the NGVFA, as was the Gulf War Toxin Disease & Death Association, though this group appears to have been disbanded (Jones 1999b:67). I chose to focus on the NGVFA, maintaining close contact with them and spending time in their offices in Hull on several occasions. This enabled me to talk informally with staff about a range of issues relating to the research project, read their publicity material and other files. In March 2002 I was invited to attend their AGM/ Respite week where participants were encouraged to make appointments with me for interviews. This week was one of the most fruitful and intensive of my fieldwork as I spent five days with veterans and their families. A large number of veterans either gave me their contact details or took mine and we made contact at a later date when we made arrangements to meet.

The NGVFA charity was established in 1995 by Major Ian Hill, an ill Gulf veteran, and Major Hillary Jones, a nurse in the Gulf War. Both were outspoken members of the early GWS movement. Some years ago there had been some problems within the association and it was rumoured that these were related to the finances. As a result, I was told, the charity was struck off the charitable register. However, others re-instated the charity and were given grants by the RAF, The King George's Sailor Fund, and the Army Benevolent Fund. These funds were to be used for salaries and other supplies and were not to be directly used for veterans. The original antagonism which caused the split between the two groups remained during my contact with them. I was told by some NGVFA members that the GVA mainly consisted of officers and high ranking officers, although I did not observe this to be the case. It was also suggested to me by the NGVFA that some of the organizers of the GVA were "in it for themselves" and were there for power and money.

During the first weeks of my fieldwork I phoned the offices of the NGVFA and spoke to Rebecca. Rebecca and John were responsible for the running of the organization and I was to see them regularly throughout my research. John was the chairman of the NGVFA. As an ill veteran himself he was a very active campaigner and was well known both to the media and the government. Throughout my fieldwork he I would see him on the news, and his name often came up in GWS circles. Rebecca was his wife and ran the office. She was the person with whom I had most contact, as she was the driving force of the organization and its day-to-day operation.

After a few brief phone conversations I was invited to visit their offices, so I traveled up to Hull to spend the day in the NGVFA offices. I made my way to a large, commercial property on the outskirts of Hull where the organisation maintains two offices. I was met by Rebecca, and introduced to Kerry and Jack who were sitting around their desks in the main office. The two women were very much in charge and wore navy blue shirts with the association logo and name. I was told that Jack volunteered in the office and was an ill Gulf veteran who had been “saved” by the association. Kerry was Rebecca’s colleague and friend and was an ill veteran who was on the board of the association and a friend of John’s, as they had served together. Kerry mainly focused on War Pension Tribunal Appeals and behind her sat a large board displaying the names of veterans and their impending appeal dates. On another wall was a small board with the pictures of four veterans. I was soon told that this was the “death board”. Under each picture was written the reason for death: “drowned”, “cancer”, “suicide”. The office appeared to be quite busy with the phones ringing often. Most of the calls seemed to be from a small pool of regular members calling for various inquiries. There were also a number of calls from people making initial inquiries about the association. One of the major roles of the association in the collection and dissemination of information; the NGVFA office collects and stores scientific papers and media reports and sends them out to interested parties. When a veteran phones the organization they send a welcome pack that includes a number of scientific papers which support their understanding of the illness. The association also runs a website which provides information about the illness.

The NGVFA is a registered charity and moved into their offices in February 2001. At the time of my fieldwork I was told that they were getting roughly five membership per year and had a total of 2500 members: including Gulf veterans, their partners and family members, as well as others. During my initial contact with the NGVFA, Rebecca told me that they had only received funding in November. She explained that before this it had been extremely difficult because she had a full time job and they were running the office out of her house. The organization runs a 24 hour help line, with the organizers taking turns manning the telephones; however, calls are most often forwarded to John and Rebecca's home phone. Rebecca and Kerry often emphasized that the organization focused on the "family side" of GWS, that their organization was concerned about the families and not just the ill veteran. When I first met with Malcolm Hooper, he reported that the NGVFA particularly focused on addressing issues around sexuality.

Fundraising was a constant focus of the association, as money was necessary to finance various activities, including medical testing. One of the priorities of the association was to heighten awareness of the illness, particularly through media exposure. The NGVFA had a close relationship with certain newspapers and encouraged members to urge their local media to cover the issue. This relationship with the media has been seen in other illness movements such as CFS, the goal is to heighten awareness of the illness as well as to increase medical research. Another goal of such organizations is to overcome perceived medical ignorance on the subject (Wessely et al 1999). Indeed, the NGVFA had created "clinician packs" which provided information for doctors who were faced with GWS patients.

During my fieldwork I visited the NGVFA offices a number of times and at times the atmosphere was tense. I was often told that the veterans take out their anger and frustration on the women in the office as well as their own wives. During another visit it was clear that there had been a great deal of internal conflict in the association, mainly linked to disagreements between senior members. There was often an ambience of backbiting and divisiveness with members and staff complaining about individuals. The

association seemed in constant flux with leading members decamping because of disagreements.

The association was characterized in specific ways by both outsiders and members. As mentioned above, it was seen to be an association comprised of and run by TA soldiers. The NGVFA were described as controversial and “bolshy” and some suggested they often did things that were detrimental to their cause. For example, one member said that a study had appeared which suggested that the cause of GWS could be combination of the vaccinations and adrenaline as a result of stress. The “Hull people”, as she described them, would not accept the findings because they had a large number in their association who were vaccinated but never went to theatre. This woman also told me that she felt that some people in the organisation exaggerated their problems and this negatively affected other suffering Gulf veterans. One well-known veteran, they said, is often pictured in the media in a wheelchair and he “acts like he is at death’s door,” but the next day he is walking around without walking sticks.⁷

Another major function of the NGVFA was their “**Annual General Meeting and Respite Care Week**” (AGM). Once a year the association organized a week away in Blackpool for members. Rebecca explained to me that 70-80 veterans and their families attended and it was an opportunity for ill veterans to take “time out with people they don’t have to explain things to.” She said that veterans are used to not having their illness understood and that the respite week provided them with an opportunity to “let their hair down”. She emphasized that it was a safe environment where they could relax, where people would not look at them and wonder how they could look and behave well when they were so ill. Everyone around understands, she said.

One of the major purposes of the week was to provide and disseminate scientific information. During the four days of the meeting scientific papers, whose results favoured the GWS movement, were laid out at the back of the meeting room and members were encouraged to take them. I was to realize that papers are analyzed closely,

⁷ This was not the first time that I had heard this person criticized. Others complained that he was a fraud and was “ruining it” for others.

but are analyzed on their helpfulness to the cause rather than on their scientific value. Such an approach to scientific fact has been noted in the CFS movement (Aronowitz 1992). Most people seemed to be there to meet with other veterans and there were a number of people who were attending for the first time. Veterans enjoyed the AGM as it gave them an opportunity to learn more about the illness from the experts, but more importantly, from other veterans. One day of the week was dedicated to talks given by a number of scientists and advocates. During the evening everyone gathered in the pub to drink and socialize. This happened every night and would often go until 3:00 am as the bar on the resort property had a late license.

APPENDIX SIX: THE GULF VETERANS' MEDICAL ASSESSMENT PROGRAMME (GVMAP)

My initial plan was to carry out observation at The Gulf War Unit, King's College London, where testing, including blood and neurological testing, was conducted on Gulf War veterans. I hoped this would enable me to observe the cultural parameters along which medical narratives of GWS were being negotiated. On beginning fieldwork, after a year delay, I realized that this would not be possible as the Gulf War Unit was on the brink of closing. Instead, a number of months into fieldwork I was able to negotiate a role as observer at the Gulf Veteran's Medical Assessment Programme (GVMAP) at St. Thomas' Hospital. GVMAP was established in 1993 by the MoD in response to the non-specific symptoms popularly termed GWS (Lee et al 2002) in order to respond to veterans' health complaints. Any Gulf veteran is entitled to attend and upon attendance is interviewed about exposures, health concerns and any other relevant issues. They are subjected to a full physical by a clinician and given a battery of tests. The GVMAP became the arena in which I observed the dialogue between sufferers and medical practitioners and the way in which GWS has been constructed, in part, out of this dialogue. This setting provided me with a way to observe the MoD and official medical position concerning GWS. As I had contact with the MoD, specifically the Gulf Veterans Illnesses Unit (GVIU) through the fact that they were part funding my research, made my entry into the GVMAP possible. It was agreed that when a patient arrived they would be asked if they would agree to have me, described as a researcher studying the Gulf War, sit in on the assessment⁸. If the patient agreed I was then invited to observe the entire assessment and often discussed the case briefly with the clinician at the close of the interview.

I also spent time at the GVMAP talking and chatting informally with the people who worked there and they were a constant source of information. I continued to spend time at the GVMAP offices and they would often pass on relevant papers, media reports and information as it arose. This was an invaluable and constant source of data.

⁸ In fact, all but one patient agreed to have me observe their assessment.

**APPENDIX SEVEN: CURRENT PROGRAMME OF ROUTINE TESTS
UNDERTAKEN AT THE GVMAP**

Full Blood Count

Blood Chemistry Tests:

Urea, Electrolytes, Creatinine & Proteins

Liver Function

Thyroid Function

Serum Calcium, Phosphate and Alkaline Phosphatase

C Reactive Protein

Sugar (Glucose)

Other tests for:

Borrelia

Hepatitis B

Hepatitis C

Urine analysis

Electrocardiography

Abdominal Ultrasonography

Peak Air Flow

Source: MoD website about Gulf illness http://www.mod.uk/issues/gulfwar/map/routine_tests.htm

APPENDIX EIGHT: FIELDWORK PROCESS

8:1 Informants

It was through the NGVFA that I contacted the majority of my informants. After meeting the organizers of the NGVFA they agreed to contact a number of their members to ask them if they would be willing to be interviewed by me. They also put a description of my project and my contact details in their monthly newsletter so that members could contact me directly. Attending the organization's Annual General Meeting and Respite Week provided me with a large number of informants (see below). In order to advertise my research and reach a wider audience of potential informants, The Ministry of Defence posted an article describing my work on their website (The Gulf Veteran's Illness Unit newsletter website) and in their newsletter. The article included contact details where I could be reached. A small article on my work including contact details appeared in *Soldier* magazine, the magazine for Army personnel. In addition, a number of informants were accessed as a result of my contact with the GVMAP.

The clinicians at the GVMAP voiced their concerns that focusing on the veterans' associations, would mean me getting a "biased" view, as I was mainly meeting ill veterans who were convinced their illness was caused by GWS. As a result of this concern, the GVMAP "randomly" selected 39 patients: 13 who were not ill; 13 who were ill, but did not attribute their illness to GWS; and 13 who believed they were suffering from GWS. The clinician wrote to them informing them of my work and asking if they would be willing to be interviewed. Of those contacted, 21 responded during the

fieldwork period (20 agreed to be interviewed one declined). Four could not arrange interview for various reasons and, thus, 16 were interviewed.

Scientists and Advocates

Throughout my fieldwork I contacted various advocates and scientists. The veterans and their associations suggested a number of scientists and doctors they felt would be helpful for me to meet because of their involvement in the debate. These included Malcolm Hooper, the scientific advisor to the veterans' associations and Dr. David, a psychiatrist who was very much involved in the GWS movement. I was to stay with Dr. David for a few days in order to interview him and to spend time at the ex-servicemen's home he ran. Whilst I was there I interviewed patients and staff including Dr. David, the administrator, the counsellor, their resident psychologist and nursing staff. I was also able to observe Dr. David assessing a new Gulf veteran who had contacted the doctor whilst I was visiting.

I contacted a number of scientists as a result of seeing their name in the paper, or as the result of a suggestion by the various people with whom I came in contact. As a result of my contacts with the MoD, GVMAP and with the King's College Gulf War Research Unit I was able to meet with a variety of researchers and was able to keep abreast of new developments in the discourse.

8:3: Interviews

Most of my informants were only interviewed on one occasion, although I maintained contact with most of them and saw some of them at various times throughout my fieldwork at various functions. These repeated meetings allowed for informal discussions and follow-up questions. For a small number of informants I had the opportunity to stay with them in their homes for between 1-5 days, allowing for more observation and informal discussion about a larger range of issues. A few key informants, mainly active members of the associations were interviewed on a number of occasions. In most cases I would either be given the name of the person, who had previously agreed to take part, or

the person would contact me directly. We would then establish a convenient date and time when I could travel to their home or another convenient location.

Most interviews were conducted in the home of the veteran. An interview schedule was used to prompt respondents, who were asked a series of questions regarding their experiences with GWS and other health beliefs. Questions were broad, designed to provide respondents with space to describe their experiences, beliefs and assumptions. Informants were also asked to discuss their military and employment background. The interviews ranged from 2 to 4 hours and were audiotaped and transcribed at a later date.

APPENDIX NINE: OTHER SITES AND SOURCES

9:1 OTHER SITES

War Pensions Tribunals

As a result of my contact with the NGVFA I was invited, in the early stages of my fieldwork, to observe a number of War Pensions Tribunals. Veterans who had illnesses or injuries caused by or complicated by service could seek a pension. These were an opportunity to meet Gulf veterans and observe the process whereby ill Gulf veterans present their case in an attempt to obtain pension benefits as a result of their illness. This process enabled me to observe how GWS was being constructed within this specific legal setting.

Conferences and meetings

I attended a number of large events, such as meetings and conferences of those involved in the field of GWS, where veterans and others were in attendance. Scientists and clinicians also acted as informants and I conducted formal interviews with them as well as informal discussions. As mentioned above, I was invited to be a regular observer of the **RBL Gulf War Group Meeting** in which Gulf issues were discussed. In the mid-stage of my fieldwork I was invited to attend a two-day meeting about GWS at the House of Lords. This meeting, hosted by the RBL was intended to raise the profile of GWS and generate interest. A number of US congressmen were invited to host a panel and recreate a **US congressional hearing** in which they would hear from and question a variety of speakers. Speakers included veteran representatives, scientists and advocates. On the second day of the meeting Ross Perot and other US congressmen spoke emotively and Robert Hayley, the leading US scientist supporting GWS presented his work.

9:3 Documents

I therefore generated a range of data as a result of these various sources of information. This included transcribed interviews with sufferers and practitioners, noted observations of clinical encounters, formal meetings between scientists, as well as informal discussions with them. I also had collected **media reports** including transcripts from radio and television interviews. Media reports took a central role in the early stage of my research

as I was given access to the MoD archive on GWS held at the King's Gulf War Research Unit, which contained media clippings about GWS from the emergence of the illness. Veterans and other would also give me doctor's notes, diaries, symptom lists, letters and other **documentation** which they felt might be helpful.

REFERENCES

- Abbey, S. and P. Garfinkel. 1991. Neurasthenia and chronic fatigue syndrome: the role of culture in the making of a diagnosis. *American Journal of Psychiatry* 148:1638-1646.
- Abou-Donia, MB., Wilmarth, K.R., Jensen, K.F., Oehme, F.W., Kurt, T.L. 1996. Neurotoxicity resulting from coexposure to pyridostigmine bromide, DEET, and Permethrin: Implications of Gulf War Chemical Exposures. *Journal of Toxicology and Environmental Health* 48, 35-56.
- Abou-Donia, MB, Garretson LK. 2000. Detection of neurofilament autoantibodies in human serum following induced neurologic disorder; a case report. *Environmental Epidemiology and Toxicology* 2: 37-41.
- Abu-Qare AW, Suliman HB, Abou-Donia MB. 2001. Induction of urinary excretion of 3-nitrotyrosine, a marker of oxidative stress, following administration of pyridostigmine bromide, DEET (N, N-diethyl-m-toluamide) and permethrin, alone and in combination in rats. *Toxicology Letters* 121: 127-34.
- Agostino, K. 1998. The Making of Warriors: Men, Identity and Military Culture. *Journal of Interdisciplinary Gender Studies* 3(2): 58-75.
- Agostino, K. 1997. "Femininities and Masculinities in the Royal Australian Navy: Workplace Discourses" PhD. Dissertation, James Cook University of Queensland.
- Anderson, I, Kemp, P and D Quilgars. 1993. *Single Homeless People*. London: HMSO.
- Araneta MRG, Detische DA, Schlangen KM, Merz RD, Forrester MB, Gray GC. 2000. Birth defect prevalence among infants of Persian Gulf veterans born in Hawaii, 1989-1993 *Teratology* 62: 195-204
- Aronowitz, R. 1992. From myalgic encephalitis to yuppie flu: a history of chronic fatigue syndrome. In *Framing Disease*. Rosenberg C and Golden J (eds). pp. 155-181. New Brunswick: Rutgers University Press.
- Aronowitz, R. and Spiro, H. 1988. The rise and fall of the psychosomatic hypothesis in ulcerative colitis. *Journal of Clinical Gastrology*. 10: 298-305.
- Arksey H. 1994. Expert and lay participation in the construction of medical knowledge. *Sociology of Health and Illness* 16: 448-468
- Bakal, Donald A. 1979. *Psychology and medicine: Psychobiological dimensions of health and illness*. London: Tavistock Publications.
- Baker, M. 1982. *Nam. The Vietnam War in the Words of the Men and Women who Fought There*. London: Abacus

- Bammer, G. and Martin, B. 1992. Repetitive Strain Injury in Australia: medical knowledge, social movement, and de facto partisanship. *Social Problems*, 39(3): 219-237.
- Barsky, A. and Borus, J. 1995. Somatization and Medicalization in the Era of Managed Care. *Journal of the American Medical Association* 274 (24): 1931-1934.
- Barsky, A. 1988. The paradox of health. *New England Journal of Medicine* Feb 18: 414-418.
- Barrett, F.J. 1996. The Organizational construction of Hegemonic Masculinity: The Case of the U.S. Navy. *Gender, Work and Organization* 3(3): 129-142
- Bartlett, F.C. 1932 *Remembering*. Cambridge: Cambridge University Press.
- Bass, C. 1990 Introduction. In *Somatization: Physical symptoms and psychological illness*. C. Bass (ed.). Oxford: Blackwell Scientific Publication
- Bass, C. and Murphy, M. 1996. Somatisation, somatoform disorders and factitious illness. In *Seminars in Liaison Psychiatry*. E. Guthrie and F. Creed (eds). London: Royal College of Psychiatrists. Pp103-156.
- Bauman, Z. 1992 Death as a social construct. *Theory, Culture & Society* 9:21-22
- Beale, P. 1995. Gulf Illness. *British Medical Journal* 310: 1334-1335.
- Beck, U. 1992. *Risk Society*. London: Sage.
- Becker, G. 1997. *Disrupted lives: How people create meaning in a chaotic world*. Berkeley and Los Angeles: University of California Press.
- Becker H. 1968. Whose side are we on? *Social Problems* 14:239-247.
- Black, M. 1962. Metaphor. In *Models and Metaphors*. M. Black (ed.) Ithaca, New York: Cornell University Press.
- Blumberg H and C. French (eds.) 1993. *The Persian Gulf War: views from the social and behavioural sciences*, Lanham, Md: University Press of America.
- Boddy, J. 1989. *Wombs and alien spirits: Women, men and the Zar cult in northern Sudan*. Madison, Wisconsin; London: University of Wisconsin Press.
- Booth, R and K. Davison. 2003. Relating our worlds in a psychobiological context: the impact of disclosure on self-generation and immunity. In *Social and Cultural Lives of Immune Systems*. J. Wilce (ed). London and New York: Routledge. Pp.36-49.

- Bosk, C. 2001. Irony, Ethnography, and Informed Consent. In *Bioethics in Social Context*. B. Hoffmaster (ed). Philadelphia: Temple University Press. pp. 199-220.
1992. *All God's Mistakes: Genetic Counseling in a Pediatric Hospital*. Chicago: The University of Chicago Press.
- Bourke, J. 1999. *An intimate history of killing: face to face killing in twentieth century warfare*. London: Granata Books.
1996. *Dismembering the male: Men's bodies, Britain and the great war*. London: Reaktion Books.
- Bridges, K. W. & Goldberg, D. P. 1985. Somatic presentation of DSM-III psychiatric disorders in primary care. *Journal of Psychosomatic Research* 29: 563-9.
- Bury, M. 1982. Chronic illness as biographical disruption. *Sociology of Health and Illness*. 4(2): 167-82.
- Busby C. 2000. Science on trial: on the biological effects and health risks following exposure to aerosols produced by the use of depleted uranium weapons. Invited presentation to the Royal Society; Jul 19.
- Cain, C. 1991. Personal Stories: Identity acquisition and self-understanding in Alcoholics Anonymous. *Ethos* 19: 210-53.
- Caplan, P. 2000. Introduction: Risk Revisited. In *Risk Revisited*. P. Caplan (ed). London: Pluto Press. Pp. 1-28.
- Caputo, P. 1977. *A Rumor of War* London: Macmillan
- Carson, R, 1965. *Silent spring*. Penguin in association with H.Hamilton.
- Cassel, E. 1982. The nature of suffering and the goals of medicine. *New England Journal of Medicine* 306, 639-45.
- Chalder T, Hull L, Unwin C, David A, Hotopf M, Wessely S. 2001. Prevalence of Gulf war veterans who think they have Gulf War Syndrome British Medical Journal 323: 473-476
- Cherry N. et al. 2001. Health and exposures of United Kingdom Gulf War veterans. Part II: The relation of health to exposure. *Occupational and Environmental Medicine* 58: 299-306.
- Claeson, B., E. Martin, W. Richardson, M. Schoch-Spana, and K. Taussig. 1996. Scientific literacy, what it is, why it's important, and why scientists think we don't have

it: The case of immunology and the immune system. In *Naked Science: Anthropological Inquiry into Boundaries, Power, and Knowledge*. L. Nader (ed.) New York: Routledge.

Clark, M. 1986. Search for a cure. *Newsweek*. August 7: 61.

Clark R., and R. Cumley. 1953. *The Book of Health*. Houston: Elsevier Press

Clauswitz, C.V. 1976 *On war*. Princeton: Princeton University Press.

Clements A. Sharpe M. Borrill J, Hawton K. 1997. Illness beliefs of patients with chronic fatigue syndrome: a quantitative investigation. *Journal of Psychosomatic Research*. 42: 615-62

Cohn, S. 2004. In private conversation.

2000. Risk, ambiguity and the loss of control: how people with a chronic illness experience complex biomedical causal models. In *Risk Revisited*. P. Caplan (Ed). Pp.204-225.

Coker WJ, Bhatt BM, Blatchley NF, Graham JT. 1999. Clinical findings for the first 1000 Gulf War veterans in the Ministry of Defence's medical assessment programme. *British Medical Journal* 318: 290-4.

Coleman, J. 1982. *The Assymetrical Society*. Syracuse University Press.

Collison, D. 1992. *Managing the Shopfloor*. Berlin: Walter de Gruyter

Connell, R. W. 2000. *The men and the boys*. Berkeley: University of California Press

1995. *Masculinities: knowledge, power and social change*. Berkeley: University of California Press

1992. Masculinity, violence, and war. In *Men's Lives*. M. Kimmel and M. Messner (eds). New York: MacMillan. pp. 177-83.

Conrad, P. And J. Schneider. 1992 *Deviance and medicalization: From badness to sickness*. Philadelphia: Temple University Press.

1980 "The medical context of deviance: contests and consequence," in *Research in the sociology of health care*, Vol. 1. Greenwich, Connecticut: JAI Press pp. 1-53.

Cowan DN, Defraites RF, Gray GC, Goldenbaum MB, Wishik SM. 1997. The risk of birth defects among children of Persian Gulf War veterans. *New England Journal of Medicine* 336: 1650-6.

Currie, E. 1995. The Gulf War syndrome. *British Medical Journal* 310: 1334-1335

David, A., Pelosi, A., McDonald, E. *et al.* 1990. Tired, weak or in need of rest: fatigue among general practice attenders. *British Medical Journal* 301: 1199-1202.

Defence Analytical Services Agency, Ministry of Defence. 2004. "1990/1991 Gulf Conflict – UK Gulf Veterans Mortality Data". 15 January.
<http://www.dasa.mod.uk/natstats/gulf/intro.html>.

De la Billiere, P. 1993. *Storm command: A personal account of the Gulf War*. London: Harper Collins.

De Sutter E. 2001. Too many babies without eyes. *Dutch Journal of Medical Science* 145: 1024.

DiGiacomo, S. 1992. Metaphor as Illness: Postmodern Dilemmas in the Representation of Body, Mind and Disorder. *Medical Anthropology* 14: 109-37.

Douglas, M. 1992. *Risk and blame: Essays in cultural theory*. London: Routledge.

1966. *Purity and danger: An analysis of the concepts of pollution and taboo*. London: Routledge.

Douglas, M. and Wildavsky, A. 1982. *Risk and culture: an essay on the selection of environmental and technological dangers*. Berkeley: University of California Press.

Doyle P, Maconochie N, Davies G, Maconochie I, Pelerin M, Prior S, and S Lewis. 2004. Miscarriage, stillbirth and congenital malformation in the offspring of UK veterans of the first Gulf war. *International Journal of Epidemiology* 33 (1): 74-86

Dressler, W, Balieriro, M. and Dos Santos, J. 1998. Culture, socio-economic status, and physical and mental health in Brazil. *Medical Anthropology Quarterly*, 12 (4): 424-446.

Dreyfuss R and D Nelkin. 1992. The Jurisprudence of Genetics. 45 *Vanderbilt Law Review* 313, 315. Vanderbilt University School of Law.

Drug Therapeutics Bulletin 2001; 39:5-7. What to do about medically unexplained symptoms.

Dumit, J. (forthcoming) Illnesses you have to fight to get: Facts as Forces in Uncertain, Emergent Illnesses. *Social Science & Medicine*, forthcoming.
<http://symptom.mit.edu/information/Dumit-Illnesses-Fight-5.rtf>

Dumit, J. (submitted) "Come on, people... we *are* the aliens. We seem to be suffering from Host-Planet Rejection Syndrome" Liminal Illnesses, Structural Damnation, and Social Creativity. Submitted to *Writing Outer Spaces*, ed. D. Battaglia.
<http://symptom.mit.edu/information/Dumit-CFS-Alien-6bib.rtf>

- Dumit, J. 1997. A Digital image of the category of the person: PET scanning and objective self-fashioning in *Cyborgs and Citadels; Anthropological Interventions in Emerging Sciences and Technologies*. Downey, G. & Dumit, J. (eds). Santa Fe, New Mexico: School of American Research Press.
- Durakovic A. 1999. Medical effects of internal contamination with uranium. *Croatian Medical Journal* 40: 49-66.
2001. On Depleted Uranium: Gulf War and Balkan Syndrome. *Croatian Medical Journal* 2001 42: 130-4.
- Dyer, C. and S. Boseley. 2003. War veterans lose trauma claim case. *The Guardian* Thursday May 22, p.1.
- Ehrenreich, B. and D. English. 1978. *For her own good*. New York: Anchor Books.
- Enloe, C. 1990. *Bananas, beaches, and bases*. Berkeley: University of California Press.
- Eisenhart, R.W. 1975. You can't hack it little girl. *Journal of Social Issues* 31: 13-23
- Eisler, R.M. and J.A. Blalock. 1991. Masculine Gender Role Stress: Implications for the Assessment of Men. *Clinical Psychology Review* 11: 45-60.
- Estroff, S. 1993. Identity, disability and schizophrenia: The problem of chronicity. In *Knowledge, power, and practice: The anthropology of medicine and everyday life*. S. Lindenbaum and M. Lock, (eds). Berkeley: University of California Press. Pp 247-286.
- Evans Pritchard, E. 1976 (1937) *Witchcraft, Oracles, and Magic among the Azande*. Oxford: Oxford University Press.
1935. Science and Sentiment. *Bulletin of the Faculty of Anthropologists* (Faud I University, Cairo).
1934. Levy-Bruhl's theory of primitive mentality. *Bulletin of the Faculty of Anthropologists* (Faud I University, Cairo) 11, pt 1:1-36. University of Egypt.
- Fabrega, H, Jr. 1991. Psychiatric stigma in non-Western societies. *Comprehensive Psychiatry*, 32 (6): 534-551.
- Ferguson E. and H. Cassidy. 1999. The Gulf War illness by association. *British Journal of Psychology* 90: 459.
- Feyerabend, P. 1978. *Science in a free society*. London: New Left Books.
- Feyerabend, P. 1975. *Against method*. London: New Left Books.

Fienman I. R. 1995. Reweaving the New World Order: An Ecofeminist Analysis. In *Cultural Politics and Social Movements*, M. Darnovsky, B. Epstein, and R. Flacks (eds). Philadelphia, PA: Temple University Press. Pp. 167-173.

Firth, R. 1985. Degrees of intelligibility. In *Reason and Morality* . J. Overing (ed). London: Tavistock Publications. Pp 29-46.

Fitzpatrick, M. 2003. "Who let the bugs out?" Paper presented at "The Tyranny of Health" Conference, Oxford University, Jan. 26th.

Fortun, K. 1999. Lone Gunmen: Legacies of the Gulf War Illness, and unseen enemies. In *Paranoia within reason: A casebook on conspiracy as explanation*. Marcus G. (ed). Chicago: University of Chicago Press. pp343-373.

Foucault, M. 1980. *The History of Sexuality Vol.1* New York: Vintage.

Franklin, S. 1998. Introduction. In *Reproducing Reproduction: kinship, power, and technological innovation*. S. Franklin and H. Ragone (eds). Philadelphia: University of Pennsylvania Press. Pp. 1-14.

Friedman, A. et al. 1996. Pyridostigmine Brain Penetration under Stress Enhances Neuronal Excitability and Induces Early Immediate Transcriptional Response. *Nature Medicine* 2 (12): 1382-1385.

Geertz, C. 1983. Local Knowledge: Fact and Law in Comparative Perspective. In *Local knowledge: further essays in interpretative anthropology*, Clifford Geertz (ed). New York: Basic Books

Gellner, E. 1984. *Nations and Nationalism* Oxford: Blackwell.

1974 [1962] Concepts and Society. In *Rationality: key concepts in the social sciences*. Wilson, B. (ed). pp. 18-49. Oxford: Basil Blackwell.

1973. The Savage and the Modern Mind. In *Modes of Thought*. R. Horton and R. Finnegan (eds). London: Faber & Faber.

Giddens, A. 1991. *Modernity and Self Identity* Cambridge: Polity Press.

Gluckman, M and E. Devons. 1964. Conclusion. In *Closed Systems and Open Minds: The limits of naivety in social anthropology*. M. Gluckman (ed). Edinburgh and London: Oliver and Boyd.

Goffman, E. 1974. *Frame Analysis*, New York: Harper Eye Row.

- Goldberg, D. and Bridges, K. 1988. Somatic presentations of psychiatric illness in primary care. *Journal of Psychosomatic Research* 17: 461-70.
- Golomb, B. 1999. A review of scientific literature as it pertains to Gulf War illnesses, vol. 2, pyridostigmine bromide. Prepared for the Office of the Secretary of State by RAND's National Defence Research Institute. Washington, D.C.
- Good, B. 1994. *Medicine, rationality and experience: an anthropological perspective*. Cambridge: Cambridge University Press.
- Grauer, E. et al. 2000. Stress Does Not Enable Pyridostigmine to Inhibit Brain Cholinesterase after Parenteral Administration. *Toxicology and Applied Pharmacology*, 164 (3): 301-304.
- Gray GC, Coate BD, Anderson CM, et al. 1996. The post-war hospitalization experience of US veterans of the Persian Gulf War. *New England Journal of Medicine* 335: 1505-13
- Gray GC, Smith TC, Kang HK, Knoke JD. 2000. Are Gulf War veterans suffering war-related illnesses? Federal and civilian hospitalizations examined, June 1991 to December 1994. *American Journal of Epidemiology* 151: 63-71
- Grayling AC, 2003. From Rome to the Renaissance, we always needed to be afraid. *The Times*, Saturday May 10.
- Gunner, G and H. Knott. 1997. *Homeless on Civvy Street*. London: Ex-Service Action Group.
- Gusterson, H. 1991. Nuclear War, the Gulf War, and the Disappearing Body. *Journal of Urban and Cultural Studies* 2 (1): 45-55.
- Hacking, I. 1995. *Rewriting the Soul: Multiple personality and the science of memory*. Princeton, NJ: Princeton University Press.
- Hacking, I. 1992a. Severals (Review of Braude 1991). *London Review of Books*, 22 June: 21-2.
- Hacking, I. 1992b. Multiple personality disorder and its hosts. *History of the Human Sciences*, 5: 3-31.
- Hacking, I. 1982. "Why are you so scared?" *New York Review of Books*, XXIV (14): 30-32 and 41.
- Haley, R.W., Horn, J., Roland, P.S., Wilson, W.B., Van ness, P.C., Bonte, F.J., Devous, M.D., Matthews, D., Fleckenstein, J.L., Wians, F.H., Wolfe, G.I., Kurt, T.L. 1997a. Evaluation of Neurologic Function in Gulf War Veterans. *Journal of the American Medical Association (JAMA)* 277: 223-230.

- Haley, R.W., Kurt, T.L. 1997b. Self-reported Exposure to Neurotoxic chemical Combinations in the gulf War: A Cross-sectional Epidemiologic Study. *JAMA* 277: 231-237.
- Haley, R.W., Thomas, L.K., Horn, J. 1997c. Is there a Gulf War Syndrome: Searching for syndromes by factor analysis of symptoms. *JAMA* 277: 215-222.
- Harraway D. 1993. The biopolitics of postmodern bodies: determinations of self in immune system discourse. In *Knowledge, power and practice: the anthropology of medicine and everyday life*. S. Lindenbaum and M. Lock (eds.). Berkeley and Los Angeles: University of California Press. Pp. 364-410.
- Haraway, D. 1991. *Simians, cyborgs, and women: The reinvention of nature*. London: Free Association Books
- Harraway, D. 1989. The biopolitics of postmodern bodies: Determination of self in immune system discourse. *Differences* I (I): 3-43.
- Harris, P. 2003. Soldiers line up to bank sperm. *Sunday Times* March.
- Heath, D. 1998. Locating genetic knowledge: picturing Marfan syndrome and its travelling constituencies. *Science, Technology and Human Values* 23 (1): 519-539
- Heath, D. 1997. Bodies, Antibodies and Modest Interventions. In *Cyborgs and Citadels; Anthropological Interventions in Emerging Sciences and Technologies*. Downey, G. & Dumit, J. (eds). Santa Fe, New Mexico: School of American Research Press. pp.67-82
- Herr, M. 1979. *Dispatches*. London: Pan Books
- Hess, D. 1993. *Science and the New Age: the paranormal, its defenders and debunkers, and American culture*. Madison, Wisconsin: University of Wisconsin Press.
- Hesse, M. 1961. *Forces and Fields: The Concept of Action at a Distance in the History of Physics*. London: Thomas Nelson and Sons
- Hofstadter, Richard. [1952] 1967. *The Paranoid Style in American Politics and Other Essays*. New York: Random House
- Hooper, M. 2003 A short review of new publications. http://www.meactionuk.org.uk/Short_Review_by_Prof_Hooper.htm. Posted April 4 2003.
- Hooper, M. 2000 "Guts, Brains & Gulf Veterans." Paper presented at the Durham Conference April. <http://osiris.sunderland.ac.uk/autism/hooper2000>

- Horton, R. (1967). African Traditional Thought and Western Science”, *Africa* 37 (1 and 2).
- Huber, P. 1990. Pathological science in court. *Risk Daedalus* 119 (4): 83-96
- Hyden, L. 1997. Illness and narrative. *Sociology of Health and Illness* 21: 49-69.
- Ingleby, D. 1982. The social construction of mental illness. In *The Problem of Medical Knowledge: Examining the Social Construction of Medicine*. P. Wright and A. Treacher (eds.), Edinburgh: University of Edinburgh Press. Pp. 123-43.
- 1988 Professional as socializers: ‘the psy complex’ *Research in Law, Deviance and social control* 7: 79-109.
- Irwin, A. and Wynne, B. (eds) 1996. *Misunderstanding science? The Public reconstruction of Science and Technology*. Cambridge: Cambridge University Press.
- Irwin, A., Dale, A., and D. Smith. 1996. Science and Hell’s kitchen: the local understanding of hazard issues. In *Misunderstanding science? The public reconstruction of science and technology*. Irwin, A. and B. Wynne. (eds). Cambridge: Cambridge University Press. Pp. 47-64.
- Isenberg, D and J. Morrow. 1995. *Friendly fire: Explaining autoimmune disease*. Oxford: Oxford University Press
- Ismail K, Kent K, Brugha T, Hotopf M, Hull L. Seed P, Palmer I, Reid S, Unwin C, David A, Wessely S. 2002. The mental health of UK Gulf War veterans: phase 2 of two phase cohort study. *British Medical Journal* Sep 14; 325 (7364): 576.
- Ismail K, Everitt B, Blatchley N et al. 1999. Is there a Gulf War Syndrome? *Lancet* 353: 179-182.
- Jadhav, S. 2004. Dhis or *Dhat*: An exotic syndrome or a cultural misunderstanding? *Psychiatry: Unusual Psychiatric Syndromes* The Medical Publishing Group 3:8.
- Jamal GA, Hansen S, Apartopoulos F, Peden A. 1996. The "Gulf War syndrome". Is there evidence of dysfunction in the nervous system. *Journal of Neurology, Neurosurgery and Psychiatry* 60: 449-450.
- Jamal, G.A. 1998. Gulf War Syndrome-a model for the complexity of biological and environmental interaction with human health. *Adverse Drug Reaction and Toxicology Review* 17: 1-17.
- Jaynes, G. 1994. Walking wounded. *Esquire Magazine*, May p.74.

Jeffords, S. 1994. *Hard bodies: Hollywood masculinity in the Reagan era*. New Brunswick, NJ: Rutgers University Press.

Jones, E. In private conversation 2004.

Jones, E. In private conversation 2003.

Jones, E. In private conversation April 2, 2003.

Jones, E. 1999a. Research into War Syndromes: The Psychological impact of modern warfare, final report. For Headquarters Adjutant General Human Sciences (Army). Crown Copyright.

Jones, E. 1999b. 'War Syndromes: the psychological impact of modern warfare, A study of the changing nature of pressure groups and government responses'. Ministry of Defence (unpublished report)

Jones, E. and S. Wessely. War Syndromes: the impact of culture on medically unexplained symptoms, *Medical History* (in press).

Jones, E. and S. Wessely. 2004. Hearts, guts and minds: somatisation in the military from 1900, *Journal of Psychosomatic Research* 56: 1-5.

Jones, E. and S. Wessely. 2003. PTSD: The History of a Concept. *Psychiatry (The Medicine Publishing Company Ltd.)*, 2: 6 June.

Jones E, and Wessely S. 2003. The impact of Total War on the practice of British psychiatry. In *The Shadows of Total War, Europe, East Asia and the United States, 1919-1939*. Chickering, R. and Forster, S. (eds), pp. 129-48. Cambridge: Cambridge University Press.

Jones E. and S. Wessely 1999. Chronic fatigue syndrome after the Crimean War and the Indian Mutiny *British Medical Journal* 319.

Jones, E., R. Hodgins Vermaas, et al. 2002. Post-combat syndromes from the Boer War to the Gulf: cluster analysis of their nature and attribution, *BMJ* 324:321-324.

Jones, J. 1962. *The Thin Red Line*. New York: Scribner

Kang HK and Bullman TA 2001. Mortality among US veterans of the Persian Gulf War: 7 year follow up. *American Journal of Epidemiology* 154: 399-405

1999 Mortality among US veterans of the Gulf War: update through December 1997. Conference on Federally Sponsored Gulf Veterans' Illnesses Research, Arlington, DC June 23-25, 1999. Washington DC: Department of Health and Human Services, 28

1998. Counterpoint: negligible healthy warrior effect on Gulf veterans' mortality. *American Journal of Epidemiology* 148: 324-5

1996. Mortality among US veterans of the Persian Gulf War. *New England Journal of Medicine* 335: 1498-504

Kaprow, M. 1985. Manufacturing Danger: Fear and pollution in industrial society. *American Anthropologist*, 87 (2): 342-56.

Kennedy, D. 2003. War wives tell of broken hearts as changed men come home. *The Times*, Monday June 2; p.5.

Kerfoot, D. and Knights, D. 1993 (July). Management, masculinity and manipulation: from paternalism to corporate strategy in financial services in Britain. *Journal of Management Studies* 30 (4): 659-67.

Kimmel, M. 1994. Masculinity as homophobia: Fear shame and silence in the construction of gender identity. In *Theorizing Masculinities*. H. Brod and M. Kaufman (eds). London: Sage

Kirmayer, L. 2003. Reflections on Embodiment. In *Social and Cultural Lives of Immune Systems*. J. Wilce (ed). London: Routledge. pp.282-302.

2000. Broken Narratives: Clinical Encounters and the Poetics of Illness Experience. In *Narrative and the Cultural Construction of Illness and Healing*. Mattingly, C. and Garro, L. (eds). Berkeley: University of California Press.

1999. Rhetorics of the body: Medically unexplained symptoms in sociocultural perspective. In *Somatoform disorders: A worldwide perspective*. Y. Ono, A. Janca, M. Asai, and N. Sartorius (eds). Keio University Symposia for Life Science and Medicine Volume 3. Tokyo:Springer- Verlag.

1996. Confusion of the senses: Implications of cultural variations in somatoform and dissociative disorders for PTSD. In *Ethnocultural Aspects of Post-traumatic stress disorders*. A. Marsella, M. Friedman, E. Garrity, R. Scurfield (eds). American Psychological Press.

1994 Improvisation and authority in illness meaning. *Culture Medicine and Psychiatry*, 18(2): 183-214.

1992. The body's insistence on meaning: Metaphor as presentation and representation in illness experience. *Medical Anthropology Quarterly*, 6(4): 323-346.

1988. Mind and Body as metaphors: Hidden values in biomedicine. In *Biomedicine Examined*. Lock, M. and Gordon, D. Dordrecht: Kluwer.

1984. 'Culture, affect and somatization.' *Transcultural Psychiatry Research* 21: 159-188.
- Kirmayer, L. Robbins, J., Dworkind M. and MJ Yaffe. 2003. Somatization and the recognition of depression and anxiety in primary care. *American Journal of Psychiatry* 150: 734-741.
- Kirmayer L, Robbins, JM. 1991. *Current concepts of somatization: research and clinical perspectives*. Washington: American Psychiatric Press.
- Kirmayer, L. and Young, A. 1988. Culture and somatization: clinical, epidemiological and ethnographic perspectives. *Psychosomatic Medicine* 60: 420-430
- Kleinman A. 1988. *The illness narratives: Suffering, healing, and the human condition*. New York: Basic Books.
- Kleinman, A., and J Kleinman 1991. Suffering and its professional transformation: Toward an ethnography of interpersonal experience. *Culture, Medicine and Psychiatry*, 15: 275-301.
- Kleinman A. and J Kleinman 1985. Somatization: the interconnections in Chinese society among culture, depressive experiences and the meanings of pain. In *Culture and Depression: studies in the anthropology and cross-cultural psychiatry of affect and disorder*. A. Kleinman and B. Good (eds.) Berkeley: University of California Press.
- Kohn, T. and McKechnie, R. (eds). 1999. *Extending the boundaries of care: medical ethics and caring practices*. Oxford, New York: Berg
- Koren, G. and N. Klein. 1991. Bias against negative studies in newspaper reports of medical research. *JAMA* 266, 1824-1826.
- Kosko, B. 1994. *Fuzzy Thinking: The new science of fuzzy logic*. London: HarperCollins.
- Kuhn, T. 1964. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Lakoff, G. And Johnson, M. 1980. *Metaphors we live by*. Chicago: University of Chicago Press.
- Latour, B. 1987. *Science in Action: How to follow Scientists and engineers through society*. Cambridge, Mass.: Harvard University Press.
- Latour, B. 1986. 'The Powers of Association' in *Power, Action and Belief: a new sociology of knowledge*. J. Law (ed). London: Routledge and Kegan Paul.

Lee H, Gabriel R, Boulton JP, Bale A, and M. Jackson. 2002. Health status and clinical diagnoses of 3000 Gulf War Veterans. *Journal of the Royal Society of Medicine* 95: 491-197

Lewis, G 2000. *A failure of treatment*. Oxford: Oxford University Press.

1975. *Knowledge of illness in a Sepik society: A study of the Gnau, New Guinea*. London: The Athlone Press.

Littlewood, R. 2002. *Pathologies of the West: an anthropology of mental illness in Europe and America*. London: Continuum.

1998. *The butterfly and the serpent: essays in psychiatry, race and religion*. London: Free Association.

1997. Military rape. *Anthropology Today*, 13 (2).

1996 Reason and Necessity in the Specification of the Multiple Self. London: The Royal Anthropological Institute, Occasional Paper No.43

Lipowski, Z. 1988. Somatization: the concept and its clinical application. *American Journal of Psychiatry* 145: 1358-1368

Lock, M. and N. Scheper-Hughes. 1996. A Critical-interpretive approach in medical anthropology: Rituals and routines of discipline and dissent. In *Handbook of Medical Anthropology: Contemporary Theory and Method. Revised Edition*. Sargent, CF. and TM. Johnson, (eds). Westport, Ct: Greenwood Press. Pp. 41-70.

Lupton. D. (ed) 1999. *Risk and Sociocultural Theory: new directions and perspectives*. Cambridge: Cambridge University Press.

Lupton, 1995. *The imperative of health: Public Health and the Regulated Body*. London: Sage.

Mailer, N. 2003. We went to war just to boost the white male ego *The Times* April 29.

Manderson, L. 1999. Gender, normality and the Post-Surgical Body. *Anthropology and Medicine* 6(3): 381-394.

Marcus, G. 1999. Introduction In *Paranoia within Reason: A casebook on conspiracy as Explanation*. Marcus G. (ed). Chicago: University of Chicago Press. pp1-11.

Marshall, C. 1996. Gulf War Syndrome: Pandora's Box Opened". Thu, 21 Nov. <http://www.csf.colorado.edu/forums/peace/96/nov96/0107.html> accessed 2003

- Martin, E. 1994. *Flexible bodies: Tracking immunity in American Culture from days of Polio to the age of AIDS*. Boston: Beacon Press.
1993. Histories of the Immune System. *Culture, Medicine and Psychiatry* 17: 67-76.
- Mattingly, C. 1998. *Healing drama and clinical plots: The narrative structure of experience*. Cambridge: Cambridge University Press.
- Mayou, R. 1991. Comorbidity and use of psychiatric services by general hospital patients *Psychosomatics* 32: 438-445.
- MCBride, G. 1994. US takes Gulf War illness seriously. *British Medical Journal* 308: 493-494.
- McKechnie, R. 1996. Insiders and outsiders: identifying experts on home ground. In *Misunderstanding Science? The public reconstruction of science and technology*. Irwin, A. and B. Wynne. (eds). Cambridge: Cambridge University Press. Pp. 127-151.
- Mechanic, D, (ed). 1983. *Handbook of health, health care, and the health professions*. New York: Free Press, pp591-607.
- Medical Research Council. Review of Research into UK Gulf War veterans' illnesses 2003
- Melucci, A. 1996. *Challenging Codes: Collective Action in the Information Age*. Cambridge: Cambridge University Press.
1989. *Nomads of the present: Social movements and individual needs in contemporary society*. Philadelphia: Temple University Press.
- Micale, MS 1995. *Approaching hysteria: disease and its interpretations*. Princeton: University Press.
- Miller, LC, Murphy R, Buss AH. 1981. Consciousness of body: private and public. *Journal Personality and Social Psychology* 41:397-406.
- Morgan, D. 1994. Theater of War: Combat, the Military and Masculinity. In *Theorizing Masculinities*. Brod, H. and M. Kaufman. (eds). London: Sage.
- Moss, J. 1996. Synergism of Toxicity of N, N-Diethyl-m-toluamide to German cockroaches (Othoptera: Blattellidae) by Hydrolytic Enzyme Inhibitors. *Journal of Economic Entomology*, 89 (5): 1151-1155.
- Mosse, G. 1996. *The Image of Man: The creation of modern masculinity*. Oxford: Oxford University Press.

1990. *Fallen Soldiers: Reshaping the memory of the World Wars*. Oxford: Oxford University Press.
- Murphy, R.F. 1987. *The Body Silent*. New York: Henry Holt and Company.
- Nader, L. 1996. Anthropological Inquiry into Boundaries, Power, and Knowledge. In *Naked Science: Anthropological Inquiry in Boundaries, Power, and Knowledge*. L. Nader (ed.) New York: Routledge. Pp.2-17.
- Napier, AD. 1996. Unnatural selection: social models of the microbial world. In *Vaccinia, vaccination, vaccinology: Jenner, Pasteur and their successors*. SA Plotkin and B. Fanitini (eds). Paris: Elsevier. pp.335-340.
1992. *Foreign Bodies: Performance, Art, and Symbolic Anthropology*. Berkeley: University of California Press.
- National Institutes of Health Technology Workshop Panel. The Persian Gulf Experience and Health. *JAMA* 272: 391-395, 1994
- Neisser, U. 1994. Self-Narratives: True and False. In *The remembering self: construction and accuracy in the self-narrative*. Neisser, U. & Fivush, R. New York: Cambridge University Press.
- Nelkin, D. and Tancredi, L. 1989 *Dangerous Diagnostics: The social power of biological information*. New York: Basic Books
- Nichter, M. 1998. The Mission within the Madness: Self-initiated medicalization as expression of agency. In *Pragmatic Women and Body Politics*. M. Lock and P. Kaufert (eds). Cambridge, Cambridge University Press, pp. 327- 353.
- Nichter, M. 1981. Idioms of distress: alternatives in the expression of psychosocial distress, a South Indian case study. *Culture, Medicine and Psychiatry* 1:9-23.
- Norman, M. 1993. Soldiers of Misfortune. *Evening Standard* October 29.
- Obeyesekere, G. 1981. *Medusa's Hair: An Essay on Personal Symbols and Religious Experience*. Chicago: University of Chicago Press.
- Obeyesekere, G. 1990. *The Work of Culture: Symbolic Transformation in Psychoanalysis and Anthropology*. Chicago and London: University of Chicago Press.
- Overing, J. 1985. Introduction. *Reason and Morality*. In J. Overing (ed). London: Tavistock Publications Pp.1- 28

- Paine, R. 1992. 'Chernobyl' reaches Norway: the accident, science, and the threat to cultural knowledge." *Public Understanding of Science* 1:261-280.
1989. Making the Invisible 'Visible': Coming to terms with 'Chernobyl' and its experts, a Saami Illustration. *International Journal of Moral and Social Studies*. Vol. 4, No. 2: summer.
1987. Accidents, ideologies and routines: 'Chernobyl' over Norway. *Anthropology Today* 3 (4): 7-10.
- Payne, K. and Gray, C. 1980. Victory is possible. *Foreign Affairs*, 39:14-27.
- Pennebaker, JW. 1982. *The psychology of physical symptoms*. New York: Springer-Verlag.
- Petrie, K.J, Booth, R.J., Elder, H. and L.D. Cameron. 1999. Psychological influences on the perception of immune function. *Psychological Medicine*, 29: 391-397.
- Polotrak, M, Leach M, and J. Fairhead. 2004. MMR "Choices" in Brighton: Understanding Public Engagement with vaccination science and delivery. Institute of Development Studies Working Papers- 224. Sussex: Institute of Development Studies.
- Porter, R. 1993. The body and the mind, the doctor and the patient: negotiating hysteria. In *Hysteria beyond Freud*. S. Gilman, H. King, R. Porter, G.S. Rousseau, E. Showalter (eds). Berkeley: University of California Press.
- Rabinow, P. 1992. Artificiality and Enlightenment: From Sociobiology to Biosociality. In *Incorporations*. Edited by J. C. a. S. Kwinter. New York: Zone. pp. 190-201.
- Racy, J. 1980. Somatization in Saudi Women: A therapeutic challenge. *British Journal of Psychiatry*.137: 212-216.
- Randall G, and S. Brown. 1994. *Falling Out: a research study of homeless ex-service people*. London: CRISIS.
- Randolph Higgonet, M. and P. L. Randolph Higgonet. 1987. "The Double Helix," In *Behind the Lines: Gender and the Two World Wars*. M. Randolph Higonnet, J. Jensen, S. Michel and M. Collins Weitz (eds). New Haven, Conn.: Yale University Press.
- Redclift, N. and A. Shand. In private conversations 2003.
- Reid J, and Reynold L. 1990. Requiem for RSI: the explanation and control of an occupational epidemic. *Medical Anthropology Quarterly* 4:162-190.
- Revell, T. 1995. The Gulf war syndrome. *British Medical Journal* 310;1073.

- Roberts, J. 1994. Sick Gulf War veterans in US to get disability payments. *British Medical Journal* 308: 1589-1590.
1994. Debate over Gulf War syndrome continues. *British Medical Journal* 309: 1392-1393.
1995. Gulf War Syndrome needs co-ordinated study. *British Medical Journal* 310: 77.
1995. Chemical weapons did not cause the Gulf war syndrome. *British Medical Journal* 310: 692.
- Rook, G. 2002. Multiple vaccinations and illness among Gulf War veterans. *Paper presented to HoL US Congressional meeting, June.*
- Rook, AW and J. L. Stanford. 1998. Give us this day our daily germs. Viewpoint, *Immunology Today*. 19 (3): 13-116
- Rook G and A. Zumla. 1997. Gulf War Syndrome: is it due to a systemic shift in cytokine balance towards a Th2 profile? *The Lancet* 349:1831-1833.
- Rose, M. 1997. "How soon could our army lose a war?" *Daily Telegraph*, 16 December, p.20.
- Rose, N. 1996. *Inventing ourselves: Psychiatry, power and personhood*. Cambridge: Cambridge University Press.
- Russell, B. 1972 (1949). *The Philosophy of Logical Atomism*, Minneapolis, Minnesota: Department of Philosophy, University of Minnesota. Repr. as *Russell's Logical Atomism*, Oxford: Fontana/Collins, 1972.
- Sahlins, M. 1983. Raw women, cooked men and other 'great things' of the Fiji Islands. In *The ethnography of cannibalism*. P. Brown & D. Turzin (eds). Washington: SPA.
- Salzman, A. 1991. *Downshifting*. New York: Harper Collins.
- Saris, A. J. 1995 Telling Stories: Life histories, illness narratives and institutional landscapes. *Culture, Medicine and Psychiatry* 19:39-72.
- Scheper-Hughes, N. & Lock 1987. The mindful body: a prologemenon to future work in medical anthropology. *Medical Anthropology Quarterly* 1: 6-41.
1986. Speaking "truth" to illness: Metaphors, reification, and a pedagogy for patients. *Medical Anthropology Quarterly* 17(5): 137-140.

Schindler, L. 1988. Understanding the immune system. Washington DC: US Department of Health and Human Services.

Schmitt, E. 1991. Racing through the darkness in pursuit of Scuds. *New York Times*, February 24, p.17.

Scott, W. 1992. PTSD and Agent Orange: Implications for a Sociology of Veterans' Issues. *Armed Forces and Society* 18: 592-612.

1993. *The Politics of Readjustment: Vietnam Veterans Since the War*. New York: Aldine De Gruyter.

Scott, P., E. Richards, and B. Martin. 1990. Captives of controversy: the myth of the neutral social researcher in contemporary scientific controversies. *Science, Technology and Human Values* 15: 474-95

Scurfield, RM. 1992. The collusion of sanitization and silence about war: an after math of 'Operation Desert Storm'. *Journal of Traumatic Stress* 5:3 505-513.

Serrano, R. 2003. "Bush weighs fate of ex-GI on death row". *The Los Angeles Times* Tuesday, January 14.

Shephard, B. 2000. *A War of Nerves: Soldiers and psychiatrists 1914-1994*. London: Jonathan Cape.

Shorter E. 1995. Sucker punched again! Physicians meet the disease-of-the-month syndrome. *Journal of Psychosomatic Research* 39: 115-188

Shorter E. 1992. *From Paralysis to Fatigue: A History of Psychosomatic Illness in the Modern Era*. New York: The Free Press.

Showalter, E. 1997a. *Hystories: Hysterical Epidemics and Modern Culture*. New York: Columbia University Press.

1997b. First Casualty of the Gulf War. *The Guardian* May 17th. Pp.25-26.

Shriver, T. 2001. Environmental Hazards and Veterans' Framing of Gulf War Illness. *Sociological Inquiry* 71 (4), Fall: 403-20.

Shriver, T. Miller, A. and S. Cable. Women's Work: Women's involvement in the Gulf War Illness Movement. *The Sociological Quarterly* 44 (4): 639-658.

Shriver, T., Webb, G. and B. Adams. 2002a. Environmental Exposures, contested illness, and collective action: the controversy over Gulf War Illness. *Humbolt Journal of Social Relations* 27 (1).

- Shriver T, Chasteen A, and B. Adams. 2002b. Cultural and political constraints in the Gulf War Illness Movement. *Sociological Focus* 35 (2):123-143.
- Silverman, Kaja. 1992. *Male Subjectivity at the Margins*. New York, Routledge.
- Silverman, D. 1987. *Communication and Medical Practice: social relations in the Clinic*. London: Sage.
- Singer, E. 1990. A question of accuracy: how journalists and scientists report research hazards. *Journal of Communication* 40:102-116.
- Skultans, V. 1998. *The testimony of lives: narrative and memory in post-Soviet Latvia*. London; New York: Routledge.
- Slovic, P., 1992. Perceptions of risk: reflections on the psychometric paradigm in *Social Theories of Risk*. S. Krimsky and D. Golding (eds). Westport, Conn: Praeger.
- Sontag, S. 1988. *Illness as Metaphor and AIDS and its Metaphors*. New York: Doubleday.
- Sontag, S. 1978. *Illness as Metaphor*. New York: Doubleday.
- Sperber D. 1985. Anthropology and psychology: towards an epidemiology of representations. *Man* 20:73-89.
- Stansbury, JP., Mathewson-Chapman M., and KE. Grant. 2003. Gender Schema and Prostrate Cancer: Veterans' Cultural Model of Masculinity. *Medical Anthropology* 22: 175-204.
- Steele, L. 2000. Prevalence and patterns of Gulf War illness in Kansas veterans: association of symptoms with characteristics of person, place, and time of military service. *American Journal of Epidemiology* 152: 992-1002.
- Steffen, V. 1997. Life stories and shared experience. *Social Science and Medicine* 45: 99-111.
- Steincamp, J. 1989. *Overload: beating ME*. London: Fontana.
- Stewart D. 1990. The changing face of somatisation. *Psychosomatics* 31: 153-8.
- Stewart, K. 1999. Conspiracy Theory's Worlds. In *Paranoia within Reason: A casebook on conspiracy as explanation*. Marcus G. (ed) Chicago: University of Chicago Press, pp13-20
- Stouffer, S. 1949. *The American Soldier vol. II*. New York: Wiley.

- Strathern, M. 1995 'Nostalgia and the new genetics' in *Rhetorics of self making*. Battaglia, D. (ed). Berkeley, London: University of California Press pp.97-120.
- Strange, P. 1983. *It'll make a man of you... A feminist view of the arms race*. Nottingham: Russell Press Ltd.
- Stromberg, P. 1985. The impression point: synthesis of symbol and self. *Ethos* 13: 56-74.
- Tambiah S. 1990. *Magic, Science, Religion, and the Scope of Rationality*. Cambridge: Cambridge University Press.
- Tauber, A. 1994 *The Immune Self: Theory or metaphor?* Cambridge: Cambridge University Press.
- Taussig, M. 1980. Reification and the consciousness of the patient. *Social Science and Medicine*. (14B): 3-13.
- Taylor PM, 1992. *War and the media: propaganda and persuasion in the Gulf War* Manchester: Manchester University Press.
- The Economist* January 11th 1997. pp. 87-90
- The Times*, 17/01/95, Staff reported. "Gulf War Syndrome is only Chronic Fatigue, says doctor.
- The Times*, Saturday May 10 2003. "Allergies: Don't they make you sick!"
- Theweleit, K. 1987. *Male fantasies, Volume I: Women, floods, bodies, history*. Trans, Stephen Conway. Minneapolis: University of Minnesota Press.
1989. *Male Fantasies, Volume II: Male Bodies- Psychoanalyzing the White Terror* trans. Erica Carter and Chris Turner. Minneapolis: University of Minnesota Press.
- Todd, J.K. 1981. Toxic Shock syndrome- scientific uncertainty and the public media. *Pediatrics*. 67: 921-3.
- Trimble, M. 1982. Functional diseases. *British Medical Journal*, ii: 1786-1770.
- Unwin, C., Hotopf, M., Hull, L., Ismail, K., David, A., Wessely, S. 2002. Women in the Persian Gulf: Lack of gender differences in long term health effects of service in the United Kingdom Armed Forces in the 1991 Persian Gulf War. *Military Medicine* 2002 May; 167 (5): 406-13.
- Unwin C, N Blatchley, W Coker, S Ferry, M Hotopf, L Hull, K Ismail, I Palmer, A David, and S Wessely. 1999. Health of UK Servicemen who served in the Persian Gulf War. *Lancet* 353:169-178.

- Van Dogen, E. 2001. Paradise Regained: How Elderly People who are Chronically Mentally Ill re-invent a Social Self. *Medical Anthropology* 19(4): 383-409.
- Van Dogen, E. and R. Reiss. 2001. Editorial. Chronic Illness: Struggle and Challenge. *Medical Anthropology* 19(4): 293-297.
- Walker, M. Legal Exposure. *The Guardian* 20/6/94
- Wallman, S. 1988. Sex and death: the AIDS crisis in social and cultural context. *Journal of Acquired Immune Deficiency Syndrome* 1(6): 571-578.
- Ware, N. 1993. Society, mind and body in chronic fatigue syndrome: an anthropological view. In *Chronic Fatigue Syndrome* G. Bock and J. Whelan (eds.) Ciba Foundation 1993 Chichester: John Wiley and Sons.
- Weller, M. P. 1988. Hysterical behaviour in patriarchal communities: Four cases, one with Ganser-like symptoms. *British Journal of Psychiatry*, 152: 687-695.
- Weiner, SL. 1986 Tampons and Toxic Shock Syndrome: Consumer protection or public confusion? In *Consuming fears: the politics of product risks*. Sapolski H.M. (ed). New York: Basic Books. Pp. 141-58.
- Wessely S. In private conversation 2004.
- Wessely S. In private conversation June 10, 2003.
- Wessely, S. 1998. Medicalisation of distress: lecture. *RSA Journal* 4 (4): 78-85.
- Wessely S. 1997. Chronic Fatigue Syndrome: a 20th century illness? *Scandinavian Journal of Work and Environmental Health* 23 (suppl. 3): 17-34.
- Wessely, S. 1995 "Have you heard? We are being poisoned," *The Times* (London), July 4, p. 14.
- Wessely, S. 1994. Neurasthenia and chronic fatigue: theory and practice in Britain and America. *Trans Cultural. Psychiatry Review*. 31:173-209.
- Wessely S. 1990. Old wine in new bottles: neurasthenia and "ME." *Psychological Medicine*. 20:35-53
- Wessely S 2001. Ten Years On: What Do We Know About the Gulf War Syndrome? *Clinical Medicine (JRCPL)* 1: 28-37.
- Wessely, S., Hotopf, M. & Sharpe, M. 1999b (first published 1998). *Chronic Fatigue and its Syndromes*. Oxford: Oxford University Press.

- Wessely S, Nimaun C. and M. Sharpe. 1999a. "Functional Somatic Syndromes: One or Many?" *Lancet* 354: 936-39.
- Wheelwright, J. 2001. *The Irritable Heart: the Medical Mystery of the Gulf War*. New York: W.W. Norton & Company.
- White, L. 2000. *Speaking with Vampires: Rumor and History in Colonial Africa*. Berkeley: University of California Press.
- Wikan, U. 1990. *Managing turbulent hearts: a Balinese formula for living*. Chicago: University of Chicago Press.
- Wilce, J. (ed.) 2003. *Social and cultural lives of immune systems*. London and New York: Routledge.
- Wilce, J. and L. Price. 2003. Metaphors our bodyminds live by. In *Social and cultural lives of immune systems*. J. Wilce (ed.) London and New York: Routledge. Pp. 51-80.
- Williams, C. 1994. Militarized Masculinity. *Qualitative Sociology* 17:415-422.
- Williams, G. 1984. The genesis of chronic illness: narrative reconstruction. *Sociology of Health and illness*. 6(2): 175-200.
- Winch, P. 1964. Understanding a primitive culture. *American Philosophical Quarterly* I: 3087-24.
- Wynne, B. 1980. Technology, risk and participation: The social treatment of uncertainty. In *Society, Technology and Risk*. J. Conrad (ed). London: Academic Press. Pp. 167-202.
- Wynne, B. 1992. Risk and social learning: Reification to engagement. *Social Theories of Risk*, S. Krimsky and D. Golding (eds.) chapter 12.
- Wynne, B. 1996. Misunderstanding misunderstandings: social identities and public uptake of science. In *Misunderstanding science? The public reconstruction of science and technology*. Irwin, A. and B. Wynne. (eds). Cambridge: Cambridge University Press. Pp. 19-46.
- The X Factor*. 1997. Gulf War Syndrome. Issue 20: 539-543.
- Young, A. 1995. *The harmony of illusions: inventing post-traumatic disorder*. Princeton, N.J: Princeton University Press.