

Chapter 3

LEAKY BODIES

Introduction

The taxi took me from the train station in Skegness to the family resort, my home for the next week while I attended the GWVA'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 grey 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 Jones, 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 was included, as were various scientific papers.

After pouring over all the information in the welcome pack, I returned to the lobby. People were arriving, signing in, paying their yearly membership fees and then chatting to one another. As I absorbed the scene I saw one man leaning on two wooden walking

sticks and a number of others, each aided by one walking stick. I sat down on a couch beside a man I did not recognise. Soon after a woman approached me, 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 fitted 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 five 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 he was not allowed to fly 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 years old, 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 traverse 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,

[E]vidence 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 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 1997b). Others say they have become bigger by gaining weight, suggesting they have "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.

1. <http://csf.colorado.edu/forums/peace/96/nov96/0107.html>, Thursday 21 November 1996, report by Carole Marshall.
2. Brian Martin is an American Gulf veteran who is known for his glow-in-the-dark vomit.

Common symptoms of GWS are skin rashes and other conditions played out on the surface of the skin. Napier notes, “particularly considering the extent to which problems of immunity manifest 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” (1992: 151; emphasis in the original). Veterans suggest that their skin is more sensitive than before and that it often reacts adversely to the environment. There is a 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.” 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 recognising 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 3,000 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 relates to 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 scrutinised. Bodies of dead veterans are similarly seen as artefacts of war with the war experience etched in their bodies, ready to be interpreted. Hooper 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 is 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 affected ... 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 eight to twelve 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 organization ... 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

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

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, scrutinised 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 became 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 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. Such occurrences indicate 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:

[W]hen 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 summarises that the IAg system involves the gut, the brain as well as the endocrine and immune systems, which suggests 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 faeces. 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 systems most commonly affected by GWS were “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

4. Non-commissioned officer.

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, 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 as a substance which can be read through testing and will hopefully reveal the illness to the observer. As mentioned above, urine is tested for IAg, but 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 [is] low levels of depleted uranium. Where does depleted uranium come from? The Gulf War.

Once again we can see that body substances are viewed 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, reported seeing “piles of sand with blood coming through” in the Gulf. A healthy veteran, Andrew, explained that “a week before the land war started ... [troops were told] “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 an association member – 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 US 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 US Defence 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 states, “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 organised experiment and that blood was central to the recording of this experiment:

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

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

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.

Body 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 on blood tests and their results. I was astonished by how many tests had been done on the blood of veterans, but also at the fact that 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, while in the preceding days the organisers 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 taking blood from each veteran.

It has also been suggested that blood can be used to diagnose GWS. A website⁶ discussing auto-immune 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 investigations. Body substances, they suggest, will reveal the truth. Veterans remain convinced that tests will

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

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.

Although veterans demand ongoing blood tests, there is some anxiety about who maintains the blood and the results. Ken was sceptical 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 is 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 emphasise 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, muscular-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 own,⁷ 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 to 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 to mark themselves 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

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

a struggle. She introduced me to her husband, a member of the GWVA. Whilst Kerry and he were checking in at the hotel reception 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 to 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 every time 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 for more testing. Participation and membership involve the body in a very direct way.

The desire to make the illness visible has developed into a desire for tests such as Magnetic Resonance Imaging (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. By showing differences between “normal brains” and those of GWS sufferers on functional MRI and MRI spectroscopy, Haley’s work seem to make the affects of the illness visible. 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 affect 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 it’s 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 pre-emptive disappearance of the body from representations of war (Gusterson 1991). The media representation of the Gulf War

[W]as 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.

The vulnerability of "bodies to chemical and biological weapons was addressed with chemical protection suits and inoculations which supposedly armoured 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 emphasised 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 wonders what happened to these soldiers' view of their bodies 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.

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.

Leaky Bodies

When Gulf veterans talk about their bodies they describe them as vulnerable, with barriers which are easily traversed. 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 6. Body orifices are also treated with anxiety with regard 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. 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 was announced by Duke University researchers 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:

[For it] 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. Hence, the idea that PB traverses the blood-brain barrier by way of stress gained popularity.

In October 1999 a Defence 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 US Congressional meeting in 2003 Hooper discussed Goran Jamal's work, which suggests that GWS involves damage to the nervous system. He argues that the nervous system is a sensitive organ to assault, 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", barriers which "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 stated: "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" (2000: 6).

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 containing 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, since in "other chemically poisoned people; in nearly every case, high levels of IAg appeared in their urine" (ibid.). 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')" (ibid.). He suggested that their

[M]ultitude 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 connects the gut function to other parts of the body, including the immune system. He recommends that Gulf veterans maintain a non-dairy, non-gluten diet because food contains toxins and allows these toxins to pass into the body. Hooper is also 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, focusing on flushing “toxins” out of the body and minimising 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 1, 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 a 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.

As in the previous chapter, we can see here how veterans encompass theories from the world around them. 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 foods and 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, ah, 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, which is a multi-mineral drink” and continued that it was important to “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 describe 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 symbolise 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 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" (*ibid.*). Furthermore, Douglas asserts that an anxiety about orifices suggests a corresponding sociological desire to protect the political and cultural unity of the group.

People employ notions of barriers and boundaries as well as their permeation by bodily fluids when thinking through issues of health and illness (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 emphasise 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 from civilians: 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, showering 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 soldiers 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 7 the notion of shifting boundaries in the military culture of the past decade will be discussed. I suggest that the soldiers' 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 7, there are a high proportion of sufferers who had supportive roles: as chefs, medical technicians, nurses. It is important to note that these jobs involve bodily substances and traversing bodily boundaries.