Something old, something new, something borrowed, something blue: The true story of Gulf War Syndrome

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Professor Simon Wessely

Lord Sutherland of Houndwood KT FBA
Provost of Gresham College

Good evening, and welcome to Gresham College. I think some of you know us very well, and some of you are probably guests for the first time. Gresham College is a foundation that is committed to free public education – not many of them about now. We are wholly privately funded through the will of Sir Thomas Gresham, an enlightened man, who was Lord Mayor of the City of London and who, in his will, left provision for the education of those who live and work in the City of London. As a result of that, here we are today. We have many series of lectures, and I hope if you haven’t seen it before you will have a look at our programme. The lectures cover a very wide range indeed, but we are particularly pleased that, because of our links with the Institute of Psychiatry, we have a series that focuses on that area.

Just one thing: I know from the demonstration outside that people feel strongly about some of the issues. Our business is to make sure that we discuss and we hear in rational and temperate terms and we naturally assume everyone here will respect that.

It is my great pleasure now to hand over to Professor Raj Persaud, who has been coordinating this series of lectures, and will introduce tonight’s speaker.

Raj Persaud

Thank you very much. Welcome everyone to Gresham College. My name is Raj Persaud, and I’m a consultant psychiatrist at the Maudsley Hospital. It is an institution that I share with Professor Simon Wessely, the very distinguished Professor of Psychiatry, who will be talking to you tonight partly about Gulf War Syndrome.

This series of Institute of Psychiatry lectures is in a sense a very special series, and this is the second of the series. It is a special event because the institution that Simon and I work at is linked to the Bethlem Royal Hospital, which is the second oldest hospital in Britain, founded in the 13th Century, and has an almost unbroken history of 750 years of looking after many people, including the mentally ill. The hospital was founded in the 13th Century, and Gresham College was founded in the 16th Century, so these are two of the most ancient institutions in London today. Yet they went along side by side until this series of Institute of Psychiatry lectures, which we think historically represents the very first time these two institutions have come together to collaborate. So I think it is a very special moment in the history of London.

It gives me great pleasure to introduce Professor Simon Wessely tonight. He is a consultant psychiatrist at the Maudsley Hospital and a professor at Kings College London. He is, oddly enough, one of the very few psychiatrists in Britain today who has developed a special interest in the very important area of the overlap between medicine and psychiatry. I want to spare his blushes, but I think it is fair to say he is probably one of the world authorities in this area, if not the world authority in this area. Perhaps the most important of his achievements though recently is that he did manage to cycle to Paris and raise money there for the British Legion. Apparently everyone in his department took bets as to which town before Paris he would end up at and finish at without actually making it to Paris, but they all had to donate those bets to the British Legion in the end. So a great sign of his tenacity - and he has been very tenacious in conducting some really very important research in one of the most difficult areas in psychiatry.

I hope you will join me tonight in welcoming Professor Simon Wessely – thank you.

Professor Simon Wessely
Thank you, Raj. You may think if you go on the Eurostar that it’s entirely flat all the way to Paris. I can promise you it’s like the Alps!

I’m quite used to lecturing, it’s part of all our jobs, but this is an unusual lecture for me, and I have to admit to being somewhat nervous about the prospect over the weekend. I received some intimidatory threats suggesting that it would be wise for me not to give this lecture, and I have to admit that I certainly considered not doing so. But wiser counsel prevailed today, and I was persuaded to go on with this, not least because I believe there are many people here who genuinely do want to learn about the Gulf War and its effect on the health of UK veterans who served there, and that is the theme of my talk.

I am using the old proverb, “Something old, something new, something borrowed, something blue,” and the four themes will be developed as we go on. I’m sure it’ll be obvious where we are.

The story begins in 1991. It’s the end of the first Gulf War. This is the official despatch by the UK armed forces, the location of our forces after what we call Operation Granby, the code name given for the Gulf War. The Americans, as you know, use symbolic code names such as Desert Shield or Desert Storm. The current Iraq War is called Operation Iraqi Freedom. Of course, our code names are extremely prosaic; they have no meaning whatsoever and are chosen by a computer. So we have Operation Granby, and the current operations in Iraq are known as Optelic.

Here we have Op Granby. It’s the end of the war and it has been a great military success. It has also been, and people often forget this, a great medical success. Normally when armed forces fight in inhospitable conditions, such as Kuwait or Saudi Arabia, the deaths from disease, non-battle injuries, are often very high. Yet during the Gulf War not a single British soldier died of an infectious disease, not a single British soldier died of heatstroke or heat-related disorders. Therefore the medics, when they packed up their tents, literally, and came home, could have been proud of what they had achieved and looked forward to plaudits from the official histories.

Now of course, that claim seems rather hollow because, as time went by, we started to see more and more stories like this. [Illustration on screen.] I think this is the first story in the UK press in about the end of’92, beginning of’93, in The People. Here we have a typical Gulf story. There we have a young man, Corporal Robert Lake, we learn, from the Royal Engineers, who goes to war fit, and now says “I’m tired all the time”. He has developed strange symptoms that the doctors cannot explain. He himself blames it on a particular hazard of that campaign, shells that put our side at risk, the risk from possible depleted uranium. So this illustrates the kind of story of fit people who came back with unexplained symptoms. We knew very early on that they didn’t have cancer, they didn’t have heart disease, thyroid disease, the kind of things that doctors are good at, but they felt ill and we could not put a finger on what was wrong with them. These stories started to escalate, and then of course people coming back from wars have children. Some of those children were born with congenital defects, and it was natural that those too would be blamed on their father’s - and it usually was their father’s - Gulf War service, and that became an extremely emotional issue. Here we see on the cover of Life magazine. [Illustration on screen.] There’s a Red Beret with his child, with an obvious congenital handicap, the tiny victims of Desert Storm.

So by 1995, 1996, this had reached a major political crisis. There were complaints of cover-up, conspiracy, paranoia and so on. The whole business was extremely difficult and nobody really knew what was going on. At that time, I had been interested in the problems of chronic fatigue and unexplained symptoms for some years, but obviously only on the civilian side, and I was also trained in epidemiology, the study of disease in populations. It seemed to me very obvious that instead of studying individuals very intensively, that don’t reveal very much, what we should be doing was looking at the population of Gulf War veterans and relevant comparison populations, because until we did that we would not be able to take the story forward. This is of course what we call epidemiology, the study of disease in populations.

So we went to see the then Minister of the Armed Forces, Nicholas Soames, and he told us in no uncertain terms that he was having none of this. He made some rather unfavourable comments about Gulf veterans at that time, and he lost his job shortly afterwards – nothing to do with us!

We went then to the Americans, and the studies you are going to see were, strangely enough, funded by the Americans but entirely on the UK armed forces.

Epidemiology is the study of disease in populations. It’s about big numbers. Epidemiologists don’t get out of bed for anything less than a thousand people, but fortunately we had lots of people here. [Illustration on screen.] What we’re doing is we’re taking a sample of everybody that we sent to the Gulf, so you can see at the top, we have 4,000 of the Gulf veterans. These are members of the armed forces who have served in the Gulf. It’s a random sample, just slightly over one in ten, of everybody sent.
So long as it is a truly random sample, we can say whatever we find in this group will be generalisable to the whole population of the Gulf veterans.

But who are we going to compare them with? It’s no use comparing them with people like me and you, although it is comparing one or two of the people here who are veterans themselves, but the military are different to you and me. They come from a small, selected group. They are physically different. They have gone through health screening. They are socially different. Simply comparing the military with civilians is not comparing like with like. So we are going to compare them with two groups: there we have 4,000 people who we sent to Bosnia on what was called Operations Grapple (another completely meaningless codeword). That was peacekeeping missions to the former Yugoslavia from 1992 onwards, which are actually more dangerous than the Gulf: more British service personnel lost their lives in the former Yugoslavia than did in the Gulf. Then we are going to compare them with what we call ERA, and these are a group of people who were in the armed forces in ‘91, ‘92, but didn’t go to either Bosnia or the Gulf. So there we have our Gulf group, our Bosnia – that was our control for being fit for active service, and there we have our ERA group, a control for simply being in the military. We are just going to stick with the top line epidemiology. That’s actually quite easy to understand, and quite easy to understand why we would want to do that.

It is however incredibly difficult to do in practice. I don’t expect you to pay any attention to this slide, except to say it took two years to do: it’s very difficult to find many of these people. Often they have left the armed forces and they are quite difficult to trace. They are often young men who are not particularly keen on taking part in studies, and it took a long time. Of course I didn’t do it, I had a team who did the work, but nevertheless it took two years, and finally we achieved what we wanted to achieve. I won’t go into details, but trust me.

Now, what are we going to do? Corporal Lake was complaining of symptoms. He had many symptoms, but they weren’t, at that time, medically explained. When we did work with groups of Gulf veterans, through the medical assessment programme, these were the kind of symptoms that they were complaining of. [Illustration on screen.] So these are 50 symptoms taken from focus groups with Gulf veterans, and these cover the whole range of physical experience. These are the symptoms we are going to ask about, and these are the results we are going to find. All you need to know is each of these dots represents one symptom. It doesn’t really matter what the symptom is, but over here, on this end, these are common symptoms, such as fatigue and headache, and over here are rather unusual symptoms. So there’s the percentage in the three groups, and they are in order of rank.

Let’s look first at yellow and red. Yellow is Bosnia. Red is ERA. These are all men actually, but the women are just the same. All of them are fit. You can see that fit young men have symptoms, so having symptoms is not, in itself, unusual. You can also see that there is clearly no difference at all between Bosnia and ERA, so there have been no health effects of serving in the former Yugoslavia.

But if you look at the blue dots, that’s the Gulf, and you can see clear blue water between the groups. Indeed, the Gulf group are complaining twice as often of each and every symptom that we asked. So it doesn’t really matter what the symptom is: if it is a common symptom, they are complaining of it twice as often; and if it is a rare symptom, they are complaining of it twice as often. Now remember this is a random sample. These are not people seeking healthcare. It’s not a selected group. We can say that this represents the Gulf cohort. They are reporting twice as many in each and every symptom.

Now, if you look at that, you can also see that that line is a very similar shape to that line. That’s important, because there is talk of a Gulf War Syndrome - in other words, something new, something special, that only occurs in Gulf veterans and not in other groups. If that were the case, some of these blue dots would be up here, and some would be down here. You would have a different pattern. But there is nothing different about the pattern; it’s just that there is too much of it. The symptoms are there too often and complained of at greater intensity. Indeed, all the main, big control studies, with two exceptions - because you have to compare like with like - all of them concluded that Gulf veterans have more symptoms than they should but there is not a particular pattern to these symptoms. So there isn’t a unique Gulf War Syndrome, but there is clearly a major Gulf health effect, and probably it really is a bit of an academic point of little matter. There isn’t a unique syndrome, but that doesn’t mean that there is no illness. All too often one hears a few politicians say there’s no such thing as Gulf War Syndrome, which is technically correct, but they don’t go on to say, “However, there is clearly a major problem here.” Sometimes one waits for the second half of a sentence, but only hears the first.

So clearly then, something is going wrong. [Illustration on screen.] Don’t worry about the figures here, but this is the measure we have of physical functioning. Despite the fact that I have just cycled to Paris, I score about there. So again, this shows you the importance of comparing like with like. Actually Gulf veterans are, in their physical health, doing a little bit better than normal
population controls, because they come from a military background. They are still doing less well than Bosnia, but that’s not actually quite as important as the second finding.

Now here, I feel pretty fit – I don’t feel fit, that’s not true, but I feel that my health is pretty good, so I score about here. There is a big difference with the Gulf veterans: they feel that their health has been affected, they feel worse, they feel sicker, their perception of their health has been dramatically changed. Actually, if you do these kind of studies and you’re familiar with these figures, that is a very, very big substantial difference.

So we might want to think, well okay, who among the Gulf group gets symptoms? It’s obviously those going to the Gulf, but can we go further than that?

Well, let’s first of all say who it isn’t. It doesn’t seem to matter which service people are in – RAF, Royal Navy and Army are all the same. It doesn’t matter if they were reserves or regulars. Most of course were regulars, but some were not. It doesn’t matter if they were men or women, and it doesn’t matter what job they do in the Gulf. Those who were in the combat arms are just the same as those who were medics, in logistics, in intelligence, whatever. So in other words, what they did in theatre doesn’t seem to be the issue. There are some significant things. Certainly, being an officer, you have better health than if you are in a lower rank, but that is a standard thing in the population of course, so nothing unusual. One or two things cause ill health, of course, like age and smoking, but those are very small. The general thing there is to say is that it doesn’t seem to matter what you did in the Gulf once you had gone there, and we will come back to why that is important in a minute.

The story so far then: what epidemiology has told us is that there has been no change in mortality, so the death rates, which are easy to measure, have not gone up associated with Gulf service, nor cancer incidence, although those in the know will tell you that actually it’s quite early days. Cancer has very long latency periods, and all we can say is that, at the moment, these figures are very reassuring. But there has been a substantial increase in symptoms, and a substantial increase therefore in other unexplained syndromes, such as chronic fatigue, fibro-mialgia, rates of depression and so on. All the kind of medical conditions that are defined by symptoms are increased in Gulf veterans.

We can say unequivocally that something has gone wrong. Something has happened, and attention must be paid. I’m going to suggest three different ways at looking at this problem; three different approaches to see if we can now shed more light on what went wrong.

Let’s start with the first one. The Gulf War was a very modern war. As this Oxford textbook, they take a kind of iconic picture. Some of you will remember the pictures of the smoke from the oil fires billowing over Kuwait at the end of the conflict. Soldiers were exposed to many new hazards that were not familiar in the history of warfare, and many new measures were taken to protect them. Chief among those was the threat from chemical and biological weapons. We have to remember this was in 1991 now, not in 2003. In 1991, there was no doubt that Saddam Hussein possessed large quantities of chemical and biological weapons. He had used them against his own people. Here, just shortly before the Gulf War, is Al-Abja, and this is the effect of using sarin nerve gas, chemical weapons, on people who are unprotected. Clearly then, it is important that the armed forces were protected against this very real threat.

How were they protected? By what is known as medical counter-measures, so a variety of things were done to give people protection against that risk that you have just seen. For example, people took tablets, known as nerve agent pre treatment set, or NAPS. They are a drug called pyridistigmine, which is a drug familiar in neurology. As long as they were in theatre, everybody was taking these tablets three times a day. Everybody in theatre was supposed to take this for as long as they were there in order to give them protection against nerve gas.

People carried injections, nerve agent antidotes. It’s a drug called Atropine, again familiar in civilian medical practice. You carried these, and if you felt that there was a genuine risk that you had been exposed to nerve gas, you had to inject yourself. You don’t have very long. You don’t have long to find out if it’s real or not, because if you get it wrong, and it was a real attack, you’re pretty much done for. So you carry that kind of stuff with you all the time.

This is what you wear. These are chemical biological suits, or nuclear biological chemical suits they are sometimes called. Try wearing them even on a cold day in winter London. It’s not very pleasant. Wearing them in the Gulf whilst you are fighting a high tech war creates both physiological overload and psychological depravation as well. Although I have to say when I was taken to watch the British Army in training, I was proudly shown one of these suits, and there was a hole that had been cut just above the mouthpiece, so the chap could have a cigarette, which kind of gets around the point of them!

That’s the background, and that’s to protect against chemical war. But also measures were taken to protect against biological war. Remember back in ‘91, there were no doubt large quantities of biological agents that were possessed by Saddam, and
there was no reason to believe that he would not use them. The protection against biological comes from vaccines. The armed forces are routinely vaccinated before any major overseas deployment, because the risk from infectious diseases is an ongoing hazard. These are the standard injections that they get, and they got before the Gulf, to top them up against these kind of hazards, and these are genuine hazards, make no mistake. [Illustration on screen.] What we're looking at, just a little bit of stats but not too much: we are going to look at the risk - what is the increased risk associated with receiving these vaccines on your subsequent health? We have a slight problem, which is that what we would like to do of course is to be able to link the records of all immunisations with subsequent ill health. We could not do that because most of the records were destroyed, so what we had to do was go for the one third who had kept their records, for various reasons. We are only going to look at those where there were records extant that the people had kept of the immunisations they'd had. We are not going to look at those who don't have records because of the possibility of bias and memory. You can see all these figures - they are all in yellow, so they are not significant. That means there is no association between receiving, for example, the cholera vaccine and subsequent ill health.

Let's look at the chemical biological ones. What the British used was a combination – they used anthrax, which they linked with pertussis, which is whooping cough vaccine. Now, that's not because whooping cough is a biological warfare agent, but it is what's called an adjuvant and it is used to give a bigger kick to the immune system, because the anthrax vaccine is a vaccine that takes a long time to have its effect, and it has to be given with this in order to get a rapid onset of immunity, and they also gave it with plague. What we have got here is red. This means that this is a significant association. If you receive that combination, of anthrax and potasis, you were between 30 to 40% more likely to be reporting ill health in our survey when followed up some years later. So here we have a direct epidemiological link, and at this moment it is just a link, between exposure to these vaccines and subsequent health.

One other thing that many people told us was that they had received a lot of vaccines in a short space of time. Of course this was because it was a bit of a rush, as these things always are, and we had not just the biological vaccines, we had the other, more routine, vaccines that had to be given as well. There is no particular reason to suspect that that would be associated with ill health. We do it to medical students all the time, and they don't seem to mind. But what we've got here is a surprising result. You can see there's a dose response – this is the total number of vaccines here, and this is the risk of people getting symptoms. The more vaccines they received, the more symptoms that they then reported when we followed them up those years later. So again in medicine, where you have what we call a dose response curve, that is considered to be very significant. The fact that the more you smoke, the more likely you are to get cancer is one of the pieces in the jigsaw that tell us that cigarettes cause cancer.

So there we have that finding, and we can take it even further, because multiple vaccines were given to all those going to Bosnia as well, but in Bosnia there was no association. All those figures are normal, and we don't have a trend, but there, in the Gulf, we have a trend. So it seems to be something really specific about the vaccines, the number that were given, and the campaign itself, where they were given, mainly in theatre. It's a very particular interaction, suggesting there is nothing wrong with each of the individual vaccines, but the particular pattern and the way in which they were given may have been associated with later health. [Illustration on screen.] This slide is from the Manchester group, who did a similar study after us, and they are showing that same dose response curve as well, so this has been replicated by another group, which as you know in science is very, very important - other people, using other methods, find similar results.

Why should that be? [Illustration on screen.] This is going a bit beyond me here, but this is a paper in The Lancet, a major medical journal, that theoretically said that what the British had done – there's the multiple vaccines, there's pertussis – had caused a shift in the immune system, in the way in which our body fights against infections and other things, and it has shifted from one particular pattern of cells that produce the chemicals that we need to defend ourselves to another pattern of cells. Likewise, in a setting of high stress, this particular shift would be accelerated, in the setting of high cortisol, and that may be of course why we only found the association with the people who were actually in the Gulf when they received those vaccines, when they were clearly under more stress than at other times. So that's a theoretical paper.

Did we find that? Well, we didn't really, but we did find changes in the particular chemicals that we produce to defend us against infections in our sick veterans, and an increase in other cells, so we find that there is indeed ongoing immune activation in Gulf veterans, which we have been publishing in the last couple of years.

As I said before, everything in science needs replication, and this finding also needs replication before we can be sure what it means. It has also been tested in a randomised trial now to look into control conditions that are the same hypothesis, and we will have to see what that shows.
Arthur Hubbard is a young man who joins the military on April 1st 1916. He's a Londoner, and he joins a thing called the London Scottish, which has nothing at all to do with Scotland, but everything to do with London. He joins up in high spirits in what is known as Kitchener's Army. This is probably the best moralised army the British have ever put in the field, entirely consisting of volunteers, our first mass citizen army. Not until 1917 is conscription introduced. The letters that he sends to his mother consist of volunteers, our first mass citizen army. Not until 1917 is conscription introduced. The letters that he sends to his mother exist in the Imperial War Museum, and they are relevant - you'll see why they are relevant as the story develops.

Let's go back in time and start again. We started with the story of Corporal Robert Lake, who went to war and came back a changed man. Let me tell you now the story of a man called Arthur Hubbard, who is a real man, who goes to war, also is away from home for some years and comes back a changed man, comes back finding it difficult to walk, feeling weak, having headaches, having chest pain, crying a lot, and in all other ways, feeling very sick and, once again, his doctors could not tell him what was wrong with him. In all respects, he looked like many of the Gulf veterans that we have interviewed, but of course he isn't a Gulf veteran at all; he comes from another conflict and another war. Arthur Hubbard, he is known to history because his letters to his mother exist in the Imperial War Museum, and they are relevant - you'll see why they are relevant as the story develops.

Arthur Hubbard is a young man who joins the military on April 1st 1916. He's a Londoner, and he joins a thing called the London Scottish, which has nothing at all to do with Scotland, but everything to do with London. He joins up in high spirits in what is known as Kitchener's Army. This is probably the best moralised army the British have ever put in the field, entirely consisting of volunteers, our first mass citizen army. Not until 1917 is conscription introduced. The letters that he sends to his mother are full of the spirit of the time. He talks about being with a great bunch of guys, and he talks about "we are all ready and willing to get at the Hun". So he talks in the flavour of the period, the Edwardian/Victorian period that he comes from. We see his second letter to his mother of June 1916, he's now training in France, and again writes in exactly the same vein, how "we are in excellent spirits," couldn't be better, uses the phrase "tip-top" and he says once again, "we're looking forward to the coming push." On July 1st 1916, Arthur Hubbard gets his wish and he goes to war in what we now know as the first day of the Battle
of the Somme. He of course doesn’t call it that, and in his third letter to his mother, dated July the 10th 1916, you have no idea where he is, because he probably didn’t know, but we can work out from the regimental histories that he was at the north phase of the Somme offensive.

Hubbard’s battalion did very well. They made it to the third German line, which was a tremendous achievement, but of course it was also far too far. By two o’clock that afternoon, they were caught in the German counter-barrage and counter-attack, and by dusk on July the 1st 1916, three-quarters of Hubbard’s battalion were either dead or dying. He was completely unhurt, and under the cover of nightfall he crawled his way back, all the way back to the start line, which he reached some time in the middle of the night, completely unscathed. He tells also what had happened to him that day. He said, “During that day, we came to a deep German dugout” – he used the word “German” now as opposed to the pejorative “Hun” that he’d used in his first two letters – “We came to a deep German dugout. Three Germans came out, bleeding heavily. The officer told me to shoot them, so I did. It makes my head spin to think about it.” The following day, Hubbard was okay. The third day, he was off his feet: he found it difficult to walk, he became very weak, and developing shaking and tremors. We find him on July the 10th in fact at the Norfolk and Norwich Hospital, where he writes to his mother, where he’d been for three days. We are sometimes unfair to the doctors of the First World War, because you think about the fact, even today, we can’t organise care that quickly, and yet there he was, in 1916, having made it all the way back from the front line to Norwich in a matter of days. Hubbard’s letters then describe that he remains very much unchanged over the next few months.

Now, what’s wrong with him? Well, you’ve probably already made up your mind. He of course had received the diagnosis of shellshock. When we think about that, we can think about the kind of visual imagery of the First World War, and the effects of war. We can do so through some of the paintings in the Imperial War Museum. [Illustration on screen.] Here’s a famous painting. This is known as Gassed by John Singer Sergeant. He’s an American who, known for his portraits, comes over to paint pictures of the British and Americans cooperating. War art was part of the propaganda. People forget that. They were commissioned to do a job, and he was there to paint pictures of us and the Americans cooperating, and he was unable to find any examples of it. That’s because no one had told him that the French army was in between the British and the Americans. He stumbled across a casualty clearing station in 1917, and from this comes his famous picture. This is actually posed. These are medical students, but the scene was a real one. If you see the original in the Imperial War Museum, what you can also see what’s going on there is a game of football, and he’s making the juxtaposition between the banality of what happens to soldiers and the horror of what happens as well. It’s also a Greek classical frieze, this picture. So there’s Gassed, 1917.

This is a painting called We Are Building a Brave New World. [Illustration on screen.] This is Nash, another official war artist, who by 1917 had turned very much against the war, but remember, he was censored. He wanted to paint the effect of war on men’s bodies, but was not allowed to do so. So this is an allegory. You have to imagine the effects of war on bodies from the effects of war on the landscape.

Charles Nevan, however, did paint war on bodies. [Illustration on screen.] This is 1918. It is called Powers of Glory, again clearly meant to be an ironic title, this time from Gray’s Elegy. He exhibited this in a church in Camberwell in 1918, and covered it in a black cloth as a protest against military censorship.

Of course, although the public were not thought to be able to cope with images of what war did, the people themselves saw this all the time. [Illustrations on screen.] Here is the British war dead close to where Arthur Hubbard had been fighting, being buried by the Germans in 1916. Here we have a French soldier in Artois in 1917.

This is a picture from the Imperial War Museum, which is simply labelled Shellshock 1917 – we don’t know who it is. It’s a British soldier, but we have no idea who or where it is taken. Nevertheless, through those eyes, we are seeing imagery now that is very familiar to all of us from our cultural and social history.

So ‘shellshock’ is the first of the post-conflict syndromes, and of course its name is the name that can only be used in the context of the First World War. The shell is the abiding image of that war. Fifty per cent of casualties were caused by the exploding shell, and the word ‘shellshock’ sums up what the shell does to the disintegration of body and mind and the whole of society. It is a word that cannot be translated to any other campaign, but it describes the first of our post-conflict syndromes.

It’s not the only one. [Illustration on screen.] I don’t know if you recognise what this is, but this is what is known as Operation Ranch Hand. This is the dropping of agent orange over the jungles of Vietnam, and here is agent orange. A quick trick question is to ask you what colour is agent orange. It’s actually colourless. Orange is a code name. There is also purple, and agent black as well. You will be familiar with the stories of ill health that resulted from its use. [Illustration on screen.] I picked this up recently in Sydney, from the Sydney Morning Herald - here’s an Australian veteran, who believes that he has been affected by agent
orange, and here are his symptoms - fatigue, muscle pain, arthritis, insomnia. He believes his son’s asthmatic allergies, bronchitis and being a slow learner are linked to the father's exposure. That's a classic Gulf War Syndrome story as well, but it is a different war, a different place.

Of course what also links these is the kind of modern theme governments have been, as they might say, economical with the truth on these issues, and it's easy to believe that these kind of things are happening, but once again we are in a modern climate of conspiracy, cover-up and so on, linking these modern post-war syndromes.

We looked at the notes, the medical records of British veterans, going right back to the Victorian campaigns in the Crimea to try to identify the pattern of these symptoms, to see how they have changed over time. We did in fact show a gradual shift from the kind of fatigue, neurasthenic syndromes in the Victorian days, to our more modern neuropsychiatric syndromes via heart and gut syndromes of the First and Second World War. But the key thing was that for as long as we have been sending men to war, some have come back with unexplained syndromes and unexplained illnesses, so it was not perhaps a surprise that this would also happen after the Gulf.

So here we have a second reading of the Gulf War problem, that this is the unchanging cost of warfare, of what happens to young men who go and come back. But clearly, in that narrative that I was giving you and telling you about Private Hubbard, then we are talking about psychological factors. Shellshock was finally seen to be a psychological condition, and so are many others.

So is Gulf War illness then a psychological condition after all?

Let’s go back to our study and have a look. [Illustration on screen.] This is a standardised psychiatric interview. I won’t bore you with the details, but it is to find out are Gulf veterans and the control groups suffering from identifiable psychiatric disorders, and indeed some are. You can see, of our sick Gulf veterans, 24% overall, a quarter of them, have a recognised psychiatric disorder, which is twice the background rate of the controls, so doubling the rate. They are twice as likely to be suffering from psychiatric disorders - not, incidentally, post traumatic stress disorder, which, as you know, is the kind of quintessential psychiatric injury; they are much more likely to be suffering from mood disorders and depression. So there’s the doubling of rates, which is clearly very important, but that also means three-quarters of them are not suffering from diagnosable psychiatric disorders, so is this then a psychiatric condition? No, that is not sufficient to explain the ill health, but it certainly contributes in some, and that is of course extremely important. Now, that’s not say that covers the whole thing, because the problem with a diagnosis like post traumatic stress, is that it depends upon identifiable trauma, as had clearly happened to Arthur Hubbard. But for many Gulf veterans, the issues were not the kind of classic trauma beloved of Vietnam films; it was more a chronic sense of unease and fear - the fear over the six months before Desert Storm, as the Americans call it (and this is the American data now): the fear engendered by chemical weapons, which of course is a very scary business. So we must have a broader concept of the role of psychological injury than just pure PTSD.

So where have we got to now? In psychiatry, yes, there’s an increase in PTSD, but the rate is not high. Depression and alcohol are more of a problem, and if you have much to do with the armed forces, that really doesn’t come as a surprise. It is subjective complaints that we have, but we don’t have good evidence of confirmed brain damage, which is really what neuro-psychology is. We also know, by the way (and I’m not going to show the data), that those who do have mental health problems, when they leave the armed forces, are not at all adequately treated by the NHS. In this country, we have a system where healthcare of veterans falls upon the NHS, unlike in America, and I have to say I don’t believe that that is a duty that we have discharged adequately at the moment. Many veterans do not get adequate care, they do not get access to the proper evidence-based treatments, they no longer find that their doctors are particularly sympathetic towards them. A few years ago, the generation before me, all the doctors had been in the war, in the RAMC or in national service. That generation is now gone, and the modern generation of doctors have probably very little exposure, and not much sympathy, for the problem of veterans.

Let’s take the third and final view, and this seems a little strange. Could you get Gulf War Illness, Gulf War Syndrome, without actually serving in the Gulf War at all? Well, the answer is, for some, you can. [Illustration on screen.] Here we have the symptoms again: that's the symptoms of Gulf War Illness, Gulf War Syndrome, taken from Newsweek magazine, and they have compared them with the symptoms of chronic fatigue syndrome, and you can see they overlap considerably. I have seen, as I said at the beginning, patients with chronic fatigue syndrome for most of my clinical career, and many of them resemble, in many respects, those with Gulf War Illness. Of course my patients in Camberwell don’t serve in the military and didn’t go to the Gulf, though that slide I showed you with the multiple symptoms, it could just as easily be from this, Charlie Shepherd’s book, or it could be from other things - there’s a book on food allergy, this is a book on dental amalgam. In other words, there are also people who have similar symptoms but don’t appear in the military context. So you seem to be able to get to this position without having served in the military, and what that reminds us is that those in the military, also have health concerns very much the same as you and I.
It’s not revealing any secrets to say that in recent years we have become more and more concerned about the effects of our environment. [Illustration on screen.] We have lots and lots of articles like this warning us of the dangers that lurk in our environment, such as toxicity, that are not necessarily related to the Gulf conflict at all. It’s very hard to open the Daily Mail without finding some other hazard to our life. These concerns are all around us, not just in the military. If we look at a headline like this – Gulf War Hero’s Radiation Sickness: Scandalous Secret of Desert Fever – this is reflecting back on the very first slide I showed you, the risk from depleted uranium. The problem is depleted uranium is indeed a toxic agent, but it isn’t actually radiation; its toxicity comes from its properties as a heavy metal. It could be that part of the fear here comes from that word “radiation”, which of course links to our fears of Chernobyl and so on, which is the highest thing that we are most anxious about in society. That may be why depleted uranium, for example, is such an emotive issue, when its real hazards, as I say, are those of heavy metal poisoning. They are not those of radiation. You don’t need to look far to know that vaccines are an issue not just within the military; they’re an issue outside as well. What I’m saying is that some of the issues here are not just relevant to Gulf, but they maybe come from a broader social context as well, in which Gulf veterans are just a part, just as much as you or I, and maybe Gulf War Syndrome should take less than many of these other, very contested, and very controversial, diagnoses. The reason why some of you are here is because that’s probably the first thing I’ve said that you will agree with, that these are controversial and difficult issues.

So where are we then? Gulf War illness. On the one hand, we’ve suggested that it is triggered by the particular vaccine policy that the UK armed forces used in good faith in 1991. That is the first story. The second story is that we’ve had them before. We have had vaccinations and the particular hazards of the Gulf, and that’s also true. The third story is that we are also dealing with complicated social issues. I’ve not gone through this, but there’s the influence of culture, the influence of the fact that many Gulf veterans when they came back from the Gulf were promptly sacked, under Options for Change. Indeed, if you remember, and I told you about the particular epidemiology of the Gulf, that if you have to think about something that affects lots of people, in all three armed forces, irrespective of the role they had in theatre, what could do that? Number one, most people were exposed to the medical counter-measures; number two, most people were exposed to the general hazards of war; and number three, most people were also exposed to the particular cultural and social controversy around Gulf War Syndrome, and it is from those three that we must find our answers.

Now what has happened to Gulf vets since then? The problem is, not a lot. As we follow them up, we find really no change. They are not getting better, they are not getting worse. The differences between the Gulf and our Bosnia group remain at five years, and we will be doing this study once more, next year. It would be nice to think that those figures will change, but personally I wouldn’t be betting on it.

Was it all worthwhile? What have we showed? [Illustration on screen.] I’ve added this slide because I think I need to. But we have achieved something in our ten years of research into the Gulf War problem, and this is a quote from the Lloyd Inquiry into Gulf War illness that happened last year. We have shown that there really is a problem with the UK Gulf War vets. It is not something that Nicholas Soames can sweep under the carpet. It is not something that can be ignored. We have shown that there is a link between the policy that was used in ‘91, and whereas the MOD do not accept the data that I presented to you today, nevertheless, on a precautionary basis, that system has been changed and we hope that that will lead to better health, and we have linked and shown that stress and psychiatric disorder is important, but it is not the cause in totality of the ill health in ill veterans. So that’s really what we have shown.

To conclude then, this seems to have been a story of Gulf veterans, but does it also have wider resonances? As time goes by, we have seen other similar problems as well. In Holland, they have had problems with their peacekeepers in Lebanon, in Cambodia and Bosnia – although I must say, I do like this headline, and I don’t know why – “Dutch Government decides to treat battlefield as a hazardous workplace”... It’s a strange thing! Anyway, from Canada, they’ve had problems with their forces in Croatia, very similar issues that are around Gulf War Syndrome. Those of you who followed the details will know the El-Al crash in 1992 has led to a whole host of unexplained health problems, again associated with allegations of cover-up, claims of chemical warfare and so on. We had of course the Balkans War Syndrome in the year 2000, and it is not surprising that after the worst terrorist outrage of the modern era, we would see a World Trade Center Syndrome. So it isn’t a story that is solely related to Operation Desert Storm and Operation Granby; it has wider relevance as well.

You probably have noticed of course that we have another Gulf War going on in Iraq. Has history repeated itself? Are we going to see the same thing happen? I don’t know, is the answer to that. I can say that for once we are in a much better position to detect problems if they arise. As a result of the mess of the Gulf War, this time a large, proper study was started right at the beginning of Telic, that’s the codeword we use, and we have 10,000 soldiers in other deployments, 7,000 of them in Iraq, and we have just finished now the main study to see what the health changes have been, if any. Clearly this does represent an advance. So we will have now
much better knowledge than we had in the past.

So my story then: something old, we have seen some of these before; something new, there was a definite hazard with some of the precautions that were taken to protect Gulf veterans; something borrowed, soldiers can also be civilians and the things that concern us also can concern them; something blue, the psychiatry of Gulf War is the psychiatry more of depression than it is of PTSD.

I left Arthur Hubbard in November 1916 in Norwich, Norfolk – he’s been discharged from the army as fit for no use. He’s eighteen and a half. He’s still exactly the same as he was when he was admitted there, and he’s coming home. The last letter to his mother on the file describes, in obsessive detail, how he’s going to get home. He says he’s going to take the train to Liverpool Street, cross to Waterloo, take the Number 7 tram through Kennington to the Oval, the Number 11 tram down to Camberwell, and he’s then going to walk up the hill. For those of you who know the topography of South London, you’ll be realising where he’s heading. His address seems to be the Institute of Psychiatry, de Crespigny Park, that’s where his letters have been sent. (In one of those strange ironies of history, his house may have been knocked down to make way for the Institute of Psychiatry.) He disappears from history. We can’t find him. We can’t find a death certificate for him. He doesn’t get a war pension. 100,000 shell shocked victims did, but he was not one of them, so we don’t know what happened to him. We last see him at eighteen and a half, going on the Number 7 Tram, and there it is.

So I have to thank my colleagues, both the colleagues in our first group, and the new group of colleagues who are doing our studies now. I’m very proud to be working with such a talented group of people, and I have to thank the many who have collaborated with us and continue to do so over the years.

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