

Conceptualising Foot and Mouth Disease: The Socio-Cultural Role of Metaphors, Frames and Narratives¹

Brigitte Nerlich/Craig A. Hamilton/Victoria Rowe (bn@psychology.nottingham.ac.uk)

Abstract

In diesem Artikel analysieren wir die Maul- und Klauenseuche, die im Jahre 2001 in Großbritannien grassierte in ihrem kognitiven und soziokulturellen Zusammenhang. Mythen der Landwirtschaft, Metaphern des Krieges und anderer Krankheiten, zusammen mit schockierenden Bildern des Todes und der Zerstörung, hatten einen großen Einfluss auf die Berichterstattung in den Zeitungen und auf den politischen Diskurs. Bisher herrscht in der kognitiven Linguistik das Analysieren einzelner metaphorischer Sätze noch vor. Indem wir die Maul- und Klauenseuche in ihrem sozialen Zusammenhang untersuchen, wollen über diesen Ansatz hinausgehen. Wir studieren Metaphern als Teile von stereotypischen Narrativen und im Zusammenhang mit anderen semantischen und historischen Bildfeldern. Wir argumentieren, dass Metaphern nicht nur kognitive, sondern auch kulturelle und soziale Phänomene sind. Sie sind Teil der kulturellen Phantasie eines Volkes, sie verstärken kulturelle Stereotypen, sie naturalisieren soziale Vorstellungen und sie beeinflussen die Sozialpolitik.

In this article we study the socio-cultural conceptualisation of foot and mouth disease (FMD), which raged in the United Kingdom in 2001. Farming myths and metaphors of war and disease were strong points of reference in the political and media discourse about this epidemic and they also interacted with potent visual images of death and destruction. Analysing FMD as a social and cultural phenomenon allows us to go beyond the single-sentence analysis method, which still prevails in cognitive linguistics, and focus instead on metaphors as part of stereotypical narratives and as used in the context of wider semantic and historical fields of imagery. We argue that metaphors are not only cognitive but also cultural and social phenomena. They tap into a nation's cultural imagination, they reinforce cultural stereotypes, they naturalise social representations and they shape social policy.

1. Introduction

An outbreak of foot and mouth disease (FMD) raged in the United Kingdom (UK) between February and October 2001. It turned out to be one of the worst FMD epidemics of its kind in the world. The government's response was to implement a policy that had been adopted since the beginning of the 20th century: wholesale slaughter (see Woods, 2001). Slaughtering, culling or killing all presumably infected animals, as well as healthy animals from adjoining farms, was seen as the only way to gain control of the disease and, more importantly, to maintain the UK's economically vital status as disease free. Vaccination was discussed as an alternative throughout the outbreak, but it was never implemented as a policy. After killing about 8 million, mostly healthy, animals, the UK was finally declared disease free in January 2002. Meanwhile, rural communities were traumatised and people all over the UK, scared by the bovine spongiform encephalopathy (BSE) scandal, lost faith in the country's food supply once again. In this paper we examine the cultural impact of FMD, rather than the veterinary,

¹ This article was written at the University of Nottingham's Institute for the Study of Genetics, Biorisks & Society, which is generously funded by a grant from the Leverhulme Trust. Corresponding author is Dr. Brigitte Nerlich (brigitte.nerlich@nottingham.ac.uk).

economic, social or political one. We argue that the cultural framing of FMD, through narratives, images and metaphors interacted with the framing of FMD policy (this is explored in more detail in Nerlich and Murcott, in prep.; see also Stibbe, 2002). Farming myths and metaphors of war and disease were strong points of reference in this framing process and interacted with potent visual images of death and destruction.

As early as 1644, Giambattista Vico (1948) pointed out that metaphors are like myths in miniature. In 1957 Roland Barthes noted in *Mythologies* (Barthes, 1970) that myths are not just imaginative and ‘untrue’ tales, but that we use them in everyday life to make sense of the world around us. Through such narratives we structure our views of the world and make it seem ‘natural’ for us. Lakoff and Johnson noted in 1980 that ”Like metaphors, myths are necessary for making sense of what goes on around us [...] just as we often take the metaphors of our own culture as truths, so we often take the myths of our own culture as truths” (Lakoff and Johnson, 1980:185-186). In our case, mythologising FMD as a biblical plague and metaphorising the fight against FMD as a war were just two ways of making the slaughter policy seem ‘natural’ and of convincing people (including the government itself) that ‘it works,’ a statement in turn perceived as a true statement of fact.

As for governmental policy in general, Donald Schön (1979) argued in a classic paper on metaphor and policy that ”the essential difficulties in social policy have more to do with problem setting than with problem solving, more to do with ways in which we frame the purposes to be achieved than with the selection of optimal means for achieving them” (Schön, 1979: 255; see also Schön and Rein, 1994). More recently, the media sociologist Peter Conrad has pointed out that ”how we frame a problem often includes what range of solutions we see as possible” (Conrad, 1997: 140). With FMD in the UK in 2001, this was certainly the case when metaphors of war and plague framed the issue in such a way as to make the slaughter policy seem inevitable and preferable to all other alternatives.

As we argue here, the slaughter policy adopted by the British government in response to the 2001 outbreak of FMD was framed in terms of a cluster of metaphors that ultimately trapped the government inside a single policy solution to the detriment of searching for other possible solutions. This is important since FMD itself carried no health risks for humans, but the ‘solutions’ adopted to deal with FMD did. Burning thousands of carcasses or burying them in trenches polluted ground water through the leakage of harmful disinfectants and other toxins (even BSE prions) from the carcasses into the ground. Air pollution also occurred through rising dioxin levels and the burning of toxic materials contained in the tyres and other materials used in the huge pyres for burning carcasses. In short, the FMD solution led to new problems and a heightened awareness of new risks (see Poortinga, et al., 2002).

The data in this article were extracted from FMD stories in one of the UK’s leading newspapers: *The Guardian*. Specifically, the metaphors we analysed were taken from the online archive of the newspaper, *The Guardian Unlimited* (GU). We restricted our period of research to four months: from the end of February to the end of July 2001 when the crisis was

at its peak, although outbreaks of FMD continued to occur and to be written about until autumn 2001. Out of 614 articles published during that time, we analysed 170 and extracted all metaphors, historical allusions and symbolic references from this material. The length of coverage for this one news story was exceptional. As one article pointed out (and that only one month into the epidemic): "Only wars and general elections tend to dominate for a full month. Now foot and mouth has come along to tear up the rulebook. Well into its fifth week, it continues to dominate the headlines but also, more deeply, the national mood" (GU, 27 March 2001). Because FMD was reported as a 'war' during a general election period – this might have contributed to the length and depth of its coverage by the press and also to the profound influence it had on the 'national mood' here last year.

In the following all quotations of FMD metaphors are from our corpus of metaphors collected from the online archive of *The Guardian Unlimited*. Quotation marks indicate direct quotations, italics indicate recurring metaphors.

2. Metaphors, Myths and Narratives

In this article we use concepts from cognitive linguistics to study the metaphors we have found, but we also go somewhat beyond these concepts. Ordinarily, the cognitive linguistic approach tends to focus on single sentence examples of metaphors, not whole narratives, and it frequently favours made-up examples, rather than examples collected in naturally occurring discourse. We shall focus here instead on metaphors as part of stereotypical narratives, as used in conjunction with potent photographic images, as metaphors collected *in situ*, and as metaphors that had a distinctive social relevance. Before we analyse our collection of metaphors let us summarise very briefly the main points of traditional cognitive metaphor analysis and say something about the new, more cultural and social approach to metaphor that we favour and its roots in older approaches to metaphor.

On the cognitive view of metaphor, metaphors help us understand an abstract or inherently unstructured subject matter in terms of a more concrete, more highly structured subject matter. Metaphors are not only linguistic, but cognitive phenomena. Metaphors are not only nice, but necessary for our thinking, acting and speaking. Metaphors are conceptual devices, rather than rhetorical ones, and, we would add, they are also social devices. As the eighteenth-century philosopher and wit Georg C. Lichtenberg remarked, "We do not think good metaphors are anything very important, but I think that a good metaphor is something even the police should keep an eye on" (Lichtenberg, 1990: Aphorism 91), while for I. A. Richards a command of metaphor played a role in "the control of the world that we make for ourselves to live in" (1936:135-6).

In modern cognitive linguistics, conceptual metaphors, such as ARGUMENTS ARE WAR (and their linguistic realisations, e.g. "He spearheaded the debate") are seen as mappings across at least two conceptual domains: the conceptual source domain (e.g. war) and the conceptual target domain (e.g. arguments). These mappings are not arbitrary. Rather, they are

grounded in our everyday experience of the body and the world we live in. Our conceptual metaphor system is for the most part unconsciously and automatically accessed and processed. We only become conscious of it when highly poetic and novel metaphors are created. This corresponds to what the policy analysts Schön and Rein say about frames:

We see policy positions as resting on underlying structures of belief, perception, and appreciation, which we call "frames." [...] Moreover, the frames that shape policy positions and underlie controversy are usually tacit, which means that they are exempt from conscious attention and reasoning. (Schön and Rein, 1994: 23)

As we see it, in the face of FMD the UK government, the media, and citizens tacitly and almost unconsciously relied on a well-structured network of frames and metaphors to conceptualise the problem. On their own, these frames and metaphors might have gone unnoticed, but as a slowly increasing aggregate used in conjunction with photographic images, they had a cumulative influence on political and public thinking and acting. We claim that conceptual metaphors such as DEALING WITH FMD IS WAR pervaded FMD discourse, which is similar to other discourses about fighting off diseases. Some have claimed that war metaphors, especially when used in discourse about disease, "no longer *sound* like metaphors to our ears, but more like commonsense representations" (Gwyn, 2001: 131; emphasis in the original). In *Communicating Health and Illness* by Richard Gwyn, he argues that "it is questionable whether the military metaphor should really be considered a metaphor at all, or whether [...] its metaphoric currency is now dead" (2001: 138; see also Montgomery, 1991 and Sontag, 1979). We claim on the contrary that a metaphor like DEALING WITH FMD IS WAR in FMD discourse, or what Gwyn would call the military metaphor, is not at all dead: it persistently structures in powerful ways the political and public conceptualisations of the disease. In general, the discourse of (scientific) 'control over Nature' or the 'conquest of Nature' still structures Western European thinking about food and agriculture in particular and has become a cultural given which cannot easily be displaced by other frames and metaphors, such as 'working with nature'.

In this article we want to study metaphors as cognitive *and* social devices, as being anchored in human experience *and* as being anchored in shared cultural experiences and frameworks (see Quinn, 1991; Hellsten, 2000; Zinken, in prep.).

3. FMD Metaphors, Images and Narratives

The majority of metaphors and images we discovered in FMD discourse as recorded in *The Guardian Unlimited* archive seem to derive from three key intellectual and imagistic resources: those of violence and contest, the past (especially past diseases), and the supernatural. They can be grouped accordingly in Figure 1 below. Most of the metaphors used to cope with FMD as a complex and invisible target domain were taken from very well understood source domains (e.g. war, contest, race, journey, and so on). Such metaphors helped to create a 'common ground' for communication between the media, the public, and policy makers. They also connected public discourse, political discourse, and the discourse of

the official scientists in ways similar to those noted by others (see Maasen, 1994; Maasen and Weingart, 1995; Bono, 1990, Hellsten, in prep.). Often, the metaphors were used in conjunction with powerful photographic images of death and destruction, images which appeared daily in newspapers, on television, and on the web. Some of them, such as the enormous piles of burning carcasses, assumed an iconic and symbolic force. They came to stand metonymically for the whole FMD outbreak.



Image 1: Pigs Funeral Pyre

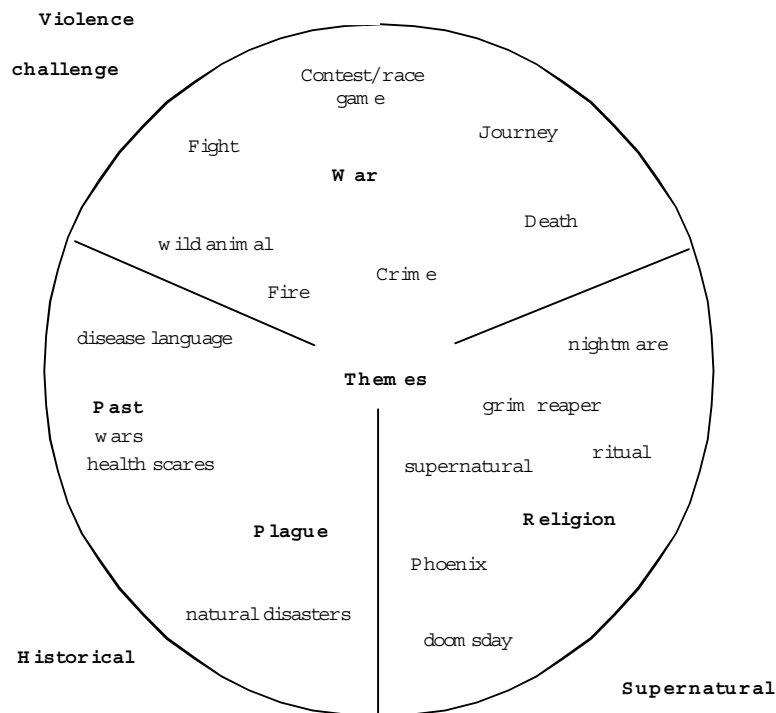


Image 2: Carcasses Piled for Burning



Image 3: After the slaughter

Figure 1. Domain Families for FMD Metaphors



The metaphors and images used during the FMD outbreak form what Weinrich (1966) calls *Bildfelder* or image fields, which are associations or networks between words, concepts, semantic fields, images, and cultural narratives. A central image for FMD was that of an enemy in a war. Associated with this image were still other images of FMD as a rival in a fight, as a rival engaged in a contest or race with humans, of FMD as a criminal victimising humans, of FMD as an evil and mysterious entity, and of FMD as a plague or even as death itself. The central semantic field was that of war, combat, fight, struggle, contest, race and journey. Visual, olfactory and auditory images of death and destruction were closely associated with this central field, such as the burning pyres and the smoke and stench they produced, the mass graves, the smell of the fires and of the rotting carcasses left in trenches, the sound of the shotguns shooting the animals, the thud of the cattle and sheep falling down, and the silence that ensued. The phrase "silent spring," the title of a book by Rachel Carson (1962) arguing against the use of pesticides in agriculture, was evoked frequently here with reference to the empty countryside that resulted from the FMD wide scale slaughter policy.

In relation to the past, the burning fires brought to mind images of medieval funeral pyres (*Scheiterhaufen*), of hell and damnation, of apocalypse and Armageddon, but also of sacrifice and purification, of salvation and regeneration rising from the ashes. The myth of Phoenix rising from the ashes became a potent symbol of hope when a calf that should have been burned with its mother and the rest of the herd was found alive under the ashes. The Prime

Minister decided to show mercy and let it live, and so the calf was appropriately called Phoenix.

These images linked FMD to deeply rooted cultural concepts of death and of plague-filled medieval villages, but also to mythical and religious images of heaven and hell, of sacrifice and redemption. Fire, for example, could be seen as a warning, a symbol of human hubris, but also as a holy fire of purification. The white-coated slaughterers could alternatively be seen as angels of death or as clinical unemotional professionals just doing their jobs.

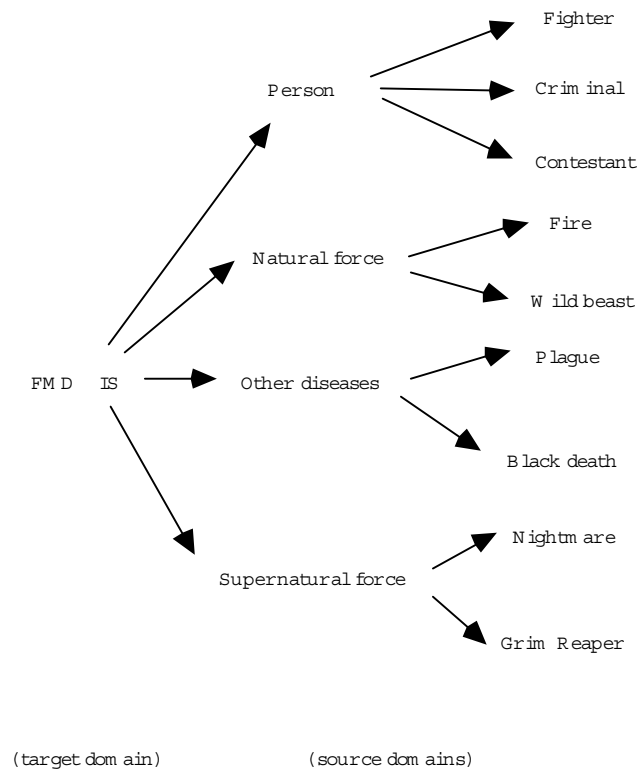
Additionally, the images had specific rhetorical functions. Although fires frequently *rage out of control* and death is often *beyond human control*, most of the images used were intended, directly or indirectly, to demonstrate human control over FMD and over nature. Telling the nation that the government and the farmers were waging war against FMD was intended to create a sense of solidarity, to stir up patriotism, to create consent for the use of certain policies, to squash dissent and to justify the use of what was increasingly seen as an outdated policy by critics of the government. To portray FMD as a rival or as a contestant in a race was intended to create reassurance (especially through the repeated use of the phrase *we are on the home straight*), to shore up public confidence and to convey a sense of 'fair play'. To talk about FMD as a criminal was likewise useful when it came to attributing blame and to dish out punishment. Talking about FMD as a fire implied that it could be *extinguished* (especially when the government imposed the creation of *firebreaks* to stop FMD in certain disease *hotspots*). However, hope of bringing the disease *under control* was undermined *at every turn* by a disease that seemed to be uncontrollable and deadly. The bright light of hope was soon replaced by the darker landscapes of *nightmares* and *bad dreams*. In essence, the illocutionary force of the images and metaphors used during the FMD outbreak thus wavered between the positive and the negative.

War, plague and the supernatural not only provide potent images or source domains, they also make for good stories in and of themselves. In stories of war and battle, contestants fight for supremacy or control and good is supposed to prevail over evil. Stories of plague and Black Death are prototypical horror stories tapping into gothic images of death and decay. Religion and the supernatural have always provided good stories and rich imagery for many cultures from the Bible onwards. In the UK, by framing the handling of FMD as a battle against an evil virus, as a struggle against a deadly plague, and as combat against dark and evil forces, the media found occasion to write stories that people wanted to read and provided the government with a framework that allowed them to ask the nation to pull together to fight a common enemy. The metaphors, images and associations spun by the media in its reporting on FMD thus tapped into a wider network of social and cultural representations and of collective myths and beliefs that eventually buttressed the government's policy decisions.

During the outbreak of FMD, the disease itself and the humans dealing with it were conceptualised as two contestants in a struggle for superiority. From this conceptualisation, two major fields of metaphors emerged: those used to describe human action against FMD

(attacking and killing the virus/cattle) and those used to describe the actions of FMD itself (attacking and killing livestock, livelihoods and even some farmers, who committed suicide). First, the source domains relating to war (e.g. battle, combat, struggle), which were used to conceptualise the human action against FMD (the target domain), were drawn from our experience of competitive human actions. Second, the source domains used to conceptualise FMD itself (the target domain) differed depending on whether FMD was personified as a human or conceptualised as something other than human. In the first case the source domains were taken from our knowledge of competitive human behaviour such as brawling or boxing, crime and racing or travelling. In the second case the source domains were derived from our knowledge of the destruction wrought by natural forces, supernatural forces or other (mythologically-charged) diseases. Figure 2 below illustrates this distinction.

Figure 2. Patterns in FMD Metaphors



The war-metaphoric and narrative frame were clearly dominant in the discourse about FMD, numerically as well as through the strength of its associations, and this not only in *The Guardian* (where it was in fact less pronounced than in the *Daily Mail* or even *The Times*). Politicians, such as the then Minister for Agriculture, Nick Brown, immediately adopted it. It was widely used in newspapers, on television, and on the web. It also pervaded the talk of farmers, their spouses and their children, as recorded in various factual and fictional diaries, published in the press ('On the farm', GU, 27 March, 2001) and also in book form (Morpurgo, *Out of the Ashes*, 2001). The war metaphoric was given added weight by the

pictures of shotguns held to the heads of animals and by the British military moving in to slaughter animals and supervise their *disposal* in mass graves, trenches and on mass pyres. In fact, the words *mass* and *massive* were constantly used since the sheer numbers of slaughtered animals evoked images of mass killings during the first and second World Wars (Bergen-Belsen, Auschwitz) as well as Vietnam (this later reference arose especially after one minister had suggested the use of napalm as a way to make the pyres burn more efficiently).

4. The War on Foot and Mouth Disease

In his now famous article on the metaphors used in the Gulf War, Lakoff (1992) provides us with a summary of the prototypical war narrative, which he calls "The Fairy Tale of the Just War":

Cast of characters: A villain, a victim, and a hero. The victim and the hero may be the same person.

The scenario: A crime is committed by the villain against an innocent victim (typically an assault, theft, or kidnapping). The offence occurs due to an imbalance of power and creates a moral imbalance. The hero either gathers helpers or decides to go it alone. The hero makes sacrifices; he undergoes difficulties, typically making an arduous heroic journey, sometimes across the sea to a treacherous terrain. The villain is inherently evil, perhaps even a monster, and thus reasoning with him is out of the question. The hero is left with no choice but to engage the villain in battle. The hero defeats the villain and rescues the victim. The moral balance is restored. Victory is achieved. The hero, who always acts honorably, has proved his manhood and achieved glory. The sacrifice was worthwhile. The hero receives acclaim, along with the gratitude of the victim and the community. (Lakoff, 1992)

In the FMD narratives that gradually emerged and condensed the issue, FMD was the villain, the farmers the victims and the government wanted to be the hero. Vets and the army were helpers. They all made sacrifices and engaged on an arduous heroic journey. Let us look at this 'storyline' a bit more closely.

The metaphor of the journey is indeed a fundamental one. Western culture is steeped in the mythological tradition of the journey and the ambulatory metaphor, from the *Odyssey* onwards (see Gibbs, 1994: 188 for a discussion of journey myths). The journey concept also applies nicely to our understanding of disease. When dealing with illness and disease in particular, "we walk 'the road to recovery', we get 'back on the right track' we 'get better one step at a time'", and so on (Gwyn, 2001: 134). This journey metaphor also structured some of the discourse about FMD, as the disease itself *raced*, *jumped*, *marched*, *speeded up* and *slowed down*, and as the fight against the disease was often said to be *on the home straight*. Meanwhile, the war against FMD was supposed to defeat the *villain* (the virus) and rescue the *victims* (the farmers). FMD was defeated by early 2002, but many of the victims are still awaiting rescue, although as in so many wars, some indeed profited greatly from the war (over forty farmers received over a million pounds each for their losses due to FMD). Also, during the outbreak Tony Blair, MAFF (the Ministry of Agriculture, Farming and Fisheries) and later (after the postponed general election) DEFRA (the Department for Environment,

Food and Rural Affairs) certainly hoped to receive acclaim, along with the gratitude of the victims and the community. But, as the war against FMD had rather ambiguous outcomes, this didn't quite turn out as the heroes expected.

In his article on the war metaphoric Lakoff (1992) also studied "War as violent crime" and "War as a competitive game" – again two metaphors that appeared on a regular basis in FMD discourse. In what follows, we shall first study the emerging narrative and metaphors of war and hand-to-hand combat, then analyse metaphors of crime and punishment and finally metaphors of contest, race, and journey.²

A war usually starts with a declaration of war. This happened in the case of FMD in the form of the "government's declaration of war with Britain's sheep." The enemy (which could be either the animals or the virus or the disease they carried) was conceptualised as the "beastly foe" or "the enemy in a war", which could also be seen as "spreading like a battle group." When taken as the animals themselves, this enemy could be "brought in convoys" to be slaughtered, burned, and buried. In a rare effort at irony one reporter predicted that "regimental goats will be unmasked as spies for the other side. *The Sun* will describe the enemy as 'no better than animals'." The aim of the war was to *win* the battle against FMD, to *control, contain, combat, defeat, eradicate, annihilate, exterminate, wipe out* the disease, that is, to "kill and bury millions of animals", and to prevent FMD from conquering more *territory. Exclusion zones or restricted zones* were established, roads were closed, disinfectant was spread. Some farms were in "a state of siege" or became "a fortress." The FMD outbreak became a *crisis, an emergency, a national emergency, a national catastrophe* and a *tragedy*. Meanwhile, the government spoke about *strategy, tactics* and *logistics, of coordinating command and control*, of being *on high alert*. An *army* of vets, butchers, slaughtermen and finally soldiers were *drafted in* and *deployed*. The commanders of the army were the then Minister for Agriculture, Nick Brown, and later the Prime Minister, Tony Blair, himself, "flanked by the chief vet, Jim Scudamore, and the government chief scientist, David King." Scudamore and King headed the FMD *task force*.

The military atmosphere surrounding FMD was captured well in the following quotes: "In the bunker [...] huge maps spread out on tables; and ministry men sticking different coloured pins into them [...] mapping the enemy with flags and circles on maps. This was the 'deep battle' phase." "In the car park; men in combat gear and berets strode between lorries; pausing to smoke pipes or cigars and say; 'Roger' and 'Chop, chop, no pissing about'." The whole situation was summed up concisely in two sentences: "It's like the wartime – which I remember well" and "London carries on as normal, while in the country it is just like a war" (an ironic reversal of the situation during the second World War air raids over London).

The words *battle, fight*, and *frontline* in particular were on everybody's lips and occurred in the following collocations:

² There are certainly many more metaphors and historical allusions one could have studied but that would have overstretched the length of this article.

- (1) There is a battle to stay ahead, fighting a hopeless battle, the fight against foot-and-mouth was stepped up, day to day efforts to fight the outbreak, army fighting to control the disease, battle to keep track of outbreak, experts battling the crisis, new battle for a family under siege, students join battle against foot and mouth
- (2) Fighting the disease on two fronts, news front, the front-line of the battle, those in the front line, dispatch from the front line, military butchers joined the front line, a separate front in the battle against the disease, the frontline which is bearing down on this disease

Military strategies to control FMD also involved "scorched-earth campaigns", "pre-emptive strikes", and deploying "a ring of troops."

The result of this war could be either victory or defeat. At the beginning, there was a fear that the "government is losing the battle", that "foot and mouth is winning", that the government is "loosing ground in the battle" as the "last [untouched] outpost falls to the virus." However, the government assured the public that "we will not accept we have defeated the disease until we have seen the last case." At regular intervals it was said that we are *on the home straight*, that the *battle is being won*, that FMD *is under control*, that FMD has been *beaten*, that FMD has been *conquered*. But this victory came with high costs. There was *carnage* and *devastation*, there were *massacres*, *mass killings*, *mass culls*, *mass slaughter*, *mass graves*, *massive graves*, *mass pyres*, *mass destruction* and *mass cremations*. The countryside was turned into "killing fields" (or, more appropriately, "culling fields") and villages became "ghost towns." The names of villages that had *succumbed* to FMD read "like a wartime cenotaph."

Death, the eternal partner of war, was everywhere: in the funeral pyres, the funeral pits, the burial trenches, the mass graves or "Hecatombs", in the smoke in the air and the silence that followed the slaughter. This silence was described as a "deafening silence", an "eerie silence". The countryside was said to be "uncannily quiet", "silent", and "lifeless." Referring back to Carson's 1962 book, one farmer said: "There is nothing: it is *Silent Spring*: empty fields in a silent spring." Some also spoke of "the silence of the lambs", referring to the hit movie starring Anthony Hopkins and based on the best-selling book of the same title by Thomas Harris (1991).

For many the fight against FMD, like any war, became a *nightmare* that *haunted* farmers and civilians alike. Phrases like the following were used in this context: "the stuff of nightmarish legend in British agriculture"; "a nightmare for the whole farming community"; "people are scared out of their wits"; "the funeral pyres of farm animals are the worst nightmare for the livestock farmers"; "mass graves highlight dimensions of a nightmare running out of control"; and "millions of people are probably dreaming horrific nightmares of this slaughter and are profoundly disturbed by it." For the civilians, caught up in this war against FMD, the war meant "waiting for news," "hoping for good news", or "watching and waiting." It meant struggling through "hard times" and "strange times." Civilians were urged to be *vigilant*, to

remain *on watch*, to not *slacken* or *relax* their *guard*. Again one sentence illustrates nicely what civilians, at least British ones, were supposed to do: "Deep down, in a very British way, people want to do the right thing. Whatever that is."

The weapons in this war were both offensive weapons such as stun-guns and shotguns and butchers' knives, and defensive weapons such as the deployment of disinfectant and the closure of the countryside. Sometimes the effect that FMD itself had on the UK was compared to the effects of a huge bomb. There was talk of an economic *fall-out*, a negative financial *impact*, of farms being *wiped out* when *hit* by the disease, of plans being *smashed to smithereens*, of the outbreak driving a huge *hole* in the rural economy, of the economy reaching *meltdown*, of *shockwaves* spreading, and so on and so on. This was all in keeping with how FMD's actions were conceptualised in relation to war and hand-to-hand combat.

As we shall see below, there are metaphors of struggle, which are even less noticeable than the metaphors of war we just have described. However, in the case of FMD at least, these metaphors, although conventionalised and unremarkable if used in isolation, were rejuvenated in the FMD context and through the potent images which accompanied them at every step: the burning carcasses, the trenches filled with dead animals, the Keep Out signs splattered all over the countryside and the stench of death hanging over rural villages. Although the war against FMD was metaphoric in nature, its consequences were real and tangible. In the aftermath of FMD farmers and their families felt traumatised.

Whereas the war metaphoric structured the talk about the governmental measures taken against FMD, a different kind of metaphoric structured the talk about the way FMD inflicted its deadly wounds on the countryside. FMD was personified as a fighter and the struggle against FMD as a boxing-match or bodily struggle. FMD was said to *administer* or *deal a blow*, a blow that was described as *bloody*, *new*, *bitter*, *potentially fatal*, *dreadful*, *deadly*, or *real* and sometimes as a *hammer blow* to the countryside. FMD was also conceptualised as *hitting*, *striking* or *hammering hard*, *severely* or *seriously*.

Once FMD had *struck*, the countryside, metonymically personified as the victim of such strikes, was described as *left reeling* from this *impact*, *wallop*, *double onslaught* or *double whammy*. It was seen as being *brought to its knees*; farmers, the other more direct victims of such strikes, were *knocked sideways*, and nothing *cushioned* the blow. Farms *went down one after the other*, they were *taken out* by FMD and farmers had *their back to the wall*. They were *in the grips* of FMD. As a consequence, farmers, engaged in this metaphorical hand-to-hand combat, had to *steel* themselves against FMD and the government had to *tackle* the disease or *take out* all the animals and *bear down totally* on the disease.

These metaphors of bodily struggle were later on also applied to the struggle between various factions involved in dealing with FMD or being accused of causing FMD. There was talk of "dirty farm rows", of woman *taking on* the *Ministry of Agriculture, Farming and Fisheries* (MAFF), of protesting villagers *seeing off* slaughterers and, most importantly, of supermarkets being accused of having the food industry and farmers in an *armlock*. This

metaphor, used by Tony Blair, became central to the debate about whether intensive farming and producing cheap food were the real causes of FMD.

The scenes of altercation between FMD and its opponents had similarities with the conceptualisation of FMD as a criminal or villain. Farmers were always wondering whether and where FMD would *strike next*, because they knew that the *list of victims* was going to be long. Once FMD arrived, farmers were *penned in*, became *prisoners on their land*, and felt either like *convicts* or *culprits*. Plastic tape began crisscrossing farms like so many *crime scenes*. Vets and MAFF officials were conceptualised as police dealing with a villain who (mostly in the shape of cattle) was *intercepted* and *detained*. Farms as *scenes of crime* were *sealed off*, *cordoned off*, *barricaded*, and real police *deployed* outside. *Exclusion zones* were established, *Keep Out* signs put up, red and white *tape* or yellow *cordons* deployed. The officials then tried to *trace* the source of the outbreak, find the *suspect* animals and the *common link* between the cases, and to follow the disease *trail*. They continued the *detective hunt*, *investigated cases*, *suspicious contacts*, and *dangerous contacts*. Their fundamental aim was to *contain* the disease. Oddly enough, animals were caught up in this metaphor as perpetrators *and* victims, moving from one source domain to another in the war metaphoric. They were suspects who were later *condemned to death* or slaughtered *on suspicion*. They were in the *queue for death*, they were on *death row*, or they were given the *death sentence*. Some, however, were given the *benefit of the doubt* and given *a stay of execution*, which apparently equates vets with *executioners*.

As a final part of looking at war metaphors in FMD discourse, we want to provide a brief overview of the conceptualisation of FMD in the context of contest, competition, race and journey. This was perhaps not war, but somebody still had to win and somebody still had to lose in this scenario. As the examples below suggest, FMD was either the entity that travelled or raced or the entity that the government tried to stop from travelling or racing:

FMD	marches	up the valley
	travels	unabated
	jumps about	in leaps and bounds
	runs	into the fells
	rolls to	a halt
	reaches	further
	goes	across long distances

stops	dead in its tracks
spreads	fast and far

Or else

The government	is determined to stop	FMD
	runs behind	FMD
	keeps pace with	FMD
	still lags behind	FMD
	catches up with	FMD
	stops	FMD

In the press, there was frequent talk of the *course* and the *progress* of the disease, of the government having *a bumpy ride* and worrying about the *correct route* to take. And finally the good news was repeatedly spread that the government was *on the home straight*, *on the home stretch*, or *on the final straight*, that they were winning the *war*, *contest*, *competition*, or *race* with the disease. Victory over the opponent was always in view, as the endpoint of either the war against FMD or as the result of the race against FMD.

5. The Reality of War: From the Figural to the Literal

It was remarkable that in the course of the UK's FMD outbreak metaphors were overtaken by reality. One could say they were progressively literalised. Whereas at first fighting the disease was just a way of talking about the actions taken against FMD, a month into the outbreak the army was actually called in to help with the slaughter. What was *like* a military operation became a military operation, and, some argue, should have been one from much earlier on in the crisis. The use of metaphors reached a different level when the army arrived and officers joined in the battle against FMD. To the press the soldiers began to make direct comparisons with real wars, such as the Falklands, the Gulf war, Bosnia and so on. War also became more real as near 'civil war' broke out between various factions and sectors of society, such as MAFF and farmers, government and MAFF, town and country, the pro-culling and the pro-vaccination lobby, and so on.

A similar turn of events and turn of metaphors can be observed in relation to FMD depicted as a personified criminal. The link between FMD and crime soon turned from the metaphorical into the literal. From suspicions that meat had been illegally imported, to illegal movements of sheep, to the spreading of disease with criminal intent, to criminal compensation claims, and so on, the metaphor and the reality of criminality were intertwined at almost every turn in the FMD narrative.

This literalisation of the war and the crime metaphoric might partly explain why there was no popular revolution caused by popular revulsion to the FMD crisis. Initially war and crime had served as metaphors that created solidarity against a common enemy or perpetrator of a crime. But when civil unrest amongst those engaged in the fight against FMD broke out, and when criminal activities (e.g. deliberately infecting herds) made people suspicious of each other, this solidarity was shattered. What little there was in terms of mutual trust was eroded. To create a new common bond in a fight against the government under these circumstances was almost impossible.

6. The Cultural Imagination

The portrayal of FMD was deeply embedded in a stable network of conventional cultural, historical, and religious narratives that tapped into a network of clashing but stereotypical images about British farming and the British countryside. For farmers, the countryside is a place of work and industry. For urbanites, it is a place of rural purity and pastoral idyll, a place for relaxing walks and lovely scenery, a provider of anonymous and cheap food. For both farmers and urban dwellers, until 2001 the British countryside was a relatively peaceful place even if this image had begun to be undermined by other food and farm scandals in the recent past. All this changed radically when the war on FMD began, when the countryside was "closed down", and when images of cullings were everywhere.

In the British cultural imagination the burning pyres clashed sharply with pictures of bucolic farming landscapes, Britain's so-called green and pleasant land, as found in paintings by John Constable and poems by William Wordsworth in the nineteenth century.

Image 4



John Constable: "Wivenhoe Park, Essex" (1816)

This clash of concepts found its way into new poems and new works of visual art (see Littoral, 2001), but also into novel schoolyard rhymes such as these, which made the round at Fernwood School in Nottingham in March 2001 (collected by Brigitte's son Matthew and his friend Josh):

Mary had a little lamb
And its name was Couth.
She left it on the farm one day
And it caught foot and mouth.

Mary had a little lamb
And its mouth was full of blisters
And now it's lying in a ditch
With all its brothers and sisters.

These schoolyard rhymes were a pastiche of a traditional English nursery rhyme:

Mary had a little lamb.
Its fleece was pure as snow,
And everywhere that Mary went,
Her lamb was sure to go.

Such data tell us that the cultural imagination can evolve in the face of a disease like FMD, and a benign nursery rhyme can become a way of nutshelling or reporting a traumatic event. During the FMD epidemic in general, the images of war, plagues, trenches and burning pyres, along with the rituals of slaughter and burial, anchored the present firmly in a very menacing past. Past and present were integrated into a network of meanings, where images, metaphors

and emotions mutually supported and reinforced each other. Present-day dreams of rural retreats resonate with idealised images of a distant bucolic life (where sheep have snow white fleece) but those dreams clash with present-day images of the British countryside, where some farms have become food factories. This highlights the ambivalent and ambiguous status of farming, animals, food, and the countryside in the British cultural imagination today.

7. Conclusion

Our analysis of metaphors used during the FMD outbreak shows that on the one hand the metaphors, narratives and images used during the FMD outbreak heightened the sense of risk, nightmare and doom perceived by many in the UK. On the other hand, they helped the public, the politicians, the scientists and the journalists naturalise a highly complex phenomenon, which could then be used by them as a life-raft when they faced major veterinary, political, or socio-economic issues surrounding FMD.

We have tried to show that metaphors are cognitive as well as cultural and social phenomena. They tap into a nation's cultural imagination, they reinforce cultural stereotypes (of bad farmers, for example; of controlling nature by war and conquest), they subvert cultural stereotypes (of peaceful and bucolic landscapes), they naturalise social representation (of war and mass killing being a natural measure used in disease control) (Moscovici, 1984), and they can directly shape public policy (shoring up support for a full-scale slaughter policy). This was especially the case in the UK in 2001 when fighting a war on various fronts against a disease and against those opposing the slaughter policy adopted to deal with the disease, a war that was probably beneficial to Tony Blair's victory in the 2001 general election. In sum, metaphors help us to assume much needed imaginary control of a threatening world, a world that sometimes thwarts easy understanding. In this respect metaphors are indispensable to politicians, to the public and also to journalists when writing about phenomena such as FMD. Indeed, it would be extremely difficult to try reporting a story like FMD without recourse to metaphor, or to report the same events with the same vitality but using a totally different set of metaphors. As Geoff Watts, a science journalist in London, has pointed out (personal communication, April 2002), a journalist who avoided metaphor would be like a painter who restricted himself or herself to one colour. However, the more successful the metaphor, the more peoples' thinking becomes entrenched, and the harder it becomes to change direction. There is no good way out of this - except by careful choice of the first metaphor to be used.

References

- Barthes, Roland (1970): *Mythologies*. Paris.
- Bono, James (1990): "Science, discourse and literature. The role/rule of metaphor in science," in: Peterfreund, Stuart (Ed.): *Literature and Science: Theory and Practice*, Boston, 59-89.
- Carson, Rachel (1962): *Silent Spring*, New York.

- Conrad, Peter (1997): "Public eyes and private genes: Historical frames, news constructions, and social problems", in: *Social Problems* 44, 139-154.
- Constable, John. (PAINTING)
- Gibbs, Ray (1994): *The Poetics of Mind*, Cambridge.
- GU: Guardian Unlimited Archive Online (2001). Foot and mouth disease: <http://www.guardian.co.uk/footandmouth/> [28.2.2002]
- Gwyn, Richard (2001): *Communicating Health and Illness*, London.
- Harris, Thomas (1991): *The Silence of the Lambs*, New York.
- Hellsten, Iina (2000): "Dolly: Scientific breakthrough or Frankenstein's Monster? Journalistic and scientific metaphors of cloning", in: *Metaphor and Symbol* 15(4), 213-221.
- Hellsten, Iina (in preparation): "Opening the Book of Life: Politics of Metaphors and the Human Genome."
- Lakoff, George (1992): "The Metaphor System Used To Justify War In The Gulf": <http://www.philosophy.uoregon.edu/metaphor/lakoff-1.htm> [28.2.2002]
- Lakoff, George/Mark Johnson (1980): *Metaphors We Live By*, Chicago.
- Lichtenberg, Georg Christoph (1990): *Aphorisms* (translated by R. J. Hollingdale), London.
- Littoral (2001): Social and Cultural Documentary Project: <http://www.footandmouthdoc.com/> [28.2.2002]
- Maasen, Sabine (1994): "Who is afraid of metaphors?" in: Maasen, Sabine/Mendelsohn, Everett/Weingart, Peter (Eds.): *Biology as Society, Society as Biology: Metaphors*, London, 11-35.
- Maasen, Sabine/Weingart, Peter (1995): "Metaphors—Messengers of Meaning. A Contribution to an Evolutionary Sociology of Science", in: *Science Communication* 17, 9-31.
- Montgomery, S. L. (1991): "Codes and combat in biomedical discourse", in: *Science as Culture* 2(3), 341-391.
- Morpurgo, Michael (2001): *Out of the Ashes*, London.
- Moscovici, Serge (1984): *Social Representations*, Cambridge.
- Nerlich, Brigitte/Murcott, Anne (in preparation). "War on foot and mouth disease: What it means to be trapped by a metaphor."
- Poortinga, Wouter/Bickerstaff, Kare/Langford, Ian/Niewöhner, Jörg and Pidgeon, Nick (2002, ms.): "The British 2001 Foot and Mouth Crisis: A comparative study of public risk perception, trust and beliefs about government policy in two communities". Centre for Environmental Risk, UEA.
- Quinn, Naomi (1991): "The Cultural Basis of Metaphor", in: Fernandez, J. W. (Ed.): *Beyond Metaphor: The Theory of Tropes in Anthropology*, Stanford, 56-93.
- Richards, Ivor Armstrong (1936): *The Philosophy of Rhetoric*, London.
- Schön, Donald (1979): "Generative metaphor: a perspective on problem-setting in social policy", in: Ortony, Andrew (Ed.): *Metaphor and Thought*, Cambridge, 137-163.
- Schön, Donald/Rein, M (1994): *Frame Reflection. Toward the Resolution of Intractable Policy Controversies*, New York.

- Sontag, Susan (1979): *Illness as Metaphor*, New York.
- Stibbe, Arran (2002): "From flu-like virus to deadly disease: Ideology and the media", in: *Journal of Media Psychology*: http://www.calstatela.edu/faculty/sfisco/reporting_of_contagious_diseases1.htm. [28.2.2002]
- Vico, Giambattista (1725/1948): *The New Science of Giambattista Vico*, Revised edition, T.G. Bergin/M.H. Fisch (Eds. and Trans.), Ithaca, NY.
- Weinrich, Harald (1966): "Semantik der Metapher", in: *Folia Linguistica: Acta Societatis Linguisticae Europae* 1, 3-17.
- Woods, Abigail (2001): "Foot-and-mouth disease," in: Sissons, Michael (Ed.): *A countryside for all: The future of rural Britain*, London, 99-124.
- Zinken, Jörg (in prep.): "Ideological imagination: Intertextual and correlational metaphors in political discourse" (Faculty of Linguistics and Literary Studies, University of Bielefeld, Germany).

Conceptualising Foot and Mouth Disease: The Socio-Cultural Role of Metaphors, Frames and Narratives1. Brigitte Nerlich/Craig A. Hamilton/Victoria Rowe (bn@psychology.nottingham.ac.uk). Abstract. (source domains). The war-metaphoric and narrative frame were clearly dominant in the discourse about FMD, numerically as well as through the strength of its associations, and this not only in The Guardian (where it was in fact less pronounced than in the Daily Mail or even The Times). Politicians, such as the then Minister for Agriculture, Nick Brown, immediately adopted it. Media: conceptualising Foot and Mouth Disease - the socio-cultural role of metaphors, frames and narratives - Brigitte Nerlich 15. Rumour: viral cows and viral culture? Towards an explanation of rumour in the 2001 UK outbreak of FMD - Nick Wright and Brigitte Nerlich 16. Disaster: a further species of trouble? Disaster and narrative - John Law and Vicky Singleton V. Epilogue 17. Speaking truth to power: Foot and Mouth and the future of agriculture and its communities - Jules Pretty Index -- . show more. Review quote. "The way in which contributors to this volume interrogate the knowledge- Conceptualising Foot and Mouth Disease: The Socio-Cultural Role of Metaphors, Frames and Narratives 1. Brigitte Nerlich, Craig Hamilton. 2002. View 4 excerpts. Highly influential. Metaphern des Helfens [Metaphors of helping]. R. Schmitt. 1995. View 8 excerpts. Highly influential. The Cultural Basis of Metaphor. Nigel W. T. Quinn. 1995.