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MRSA – Portrait of a Superbug: A Media Drama in Three Acts

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Introduction

This chapter focuses on MRSA, one of the superbugs that seem to ‘outwit’ modern medicine. It contributes to the emergent study of ‘infectious diseases and society’ which complements the more established study of ‘science and society’. We use approaches derived from discourse analysis, corpus linguistics and metaphor analysis (especially the study of discourse metaphors and metaphor scenarios) to investigate how an emergent risk from a bacterium was portrayed by the UK national press at three points in time: 1995 when the threat was as yet remote, 2000 when cases began to rise dramatically, and 2005 when the threat from MRSA became a hot political issue. We describe the changing rhetorical strategies used and the influences from science and policy on the use of preferred strategies, which roughly speaking changed from giving the bacteria a voice, to giving patients a voice, to giving politicians and policies a voice. In studying MRSA from a ‘discursive’ perspective we hope to contribute to a new understanding of the epidemiology of infections.¹

Because we humans are big and clever enough to produce and use antibiotics and disinfectants, it is easy to convince ourselves that we have banished bacteria to the fringes of existence. Don’t you believe it. Bacteria may not build cities or have interesting social lives, but they will be here when the Sun explodes. This is their planet, and we are on it only because they allow us to be. (Bryson, 2003: 369)

As this quotation from Bill Bryson’s popular book *A Short History of Nearly Everything* shows, human beings are not the only ‘agents’ on this

planet. It seems that bacteria are some of its 'prime movers'. This is a view of bacteria that has only recently started to emerge.

In the 1960s chemotherapy, immunization, sanitation and the ready availability of antibiotics had reduced infectious diseases caused by bacteria and viruses to such an extent that the Surgeon General of the United States predicted that the book of infectious diseases could be closed. Bacteria and viruses were thought to have been defeated once and for all through the use of modern medicine. In hospitals, concerns such as isolating the infected, or charging staff with responsibilities for cleaning wards, were no longer given priority in an age that believed in the seemingly magical powers of antibiotics.

The rise of antibiotic resistance and the increase in hospital-acquired infections, such as MRSA (Methicillin-resistant *Staphylococcus Aureus*), VRE (Vancomycin-resistant Enterococci) and *Clostridium difficile*, alongside increased recognition of the threat of emergent infectious diseases such as Severe Acute Respiratory Syndrome (SARS) and avian influenza have removed any such complacency.

This chapter will focus on the issue of MRSA in particular, a bacterium that has acquired the label 'superbug'. MRSA is a specific strain of the *Staphylococcus aureus* bacterium that has developed resistance to almost all antibiotics and has become widespread, particularly in hospitals. A new strain has also begun to infect people outside hospitals, so-called community-acquired MRSA. We shall focus on MRSA as a health-care-associated infection, or HCAI.

As Washer and Joffe (2006) have shown, MRSA only came to the attention of the media and then the public at large at the beginning of the 1990s, although it had been infecting people since the 1960s. One UK Member of Parliament commented in 1995: 'The first few cases of the bacteria were reported in 1991. Two years later there were 300 cases in more than 40 hospitals. Now 129 hospitals in the UK are reporting it. That is an amazing figure which shows the rapid spread of MRSA.' (Cohen, 1995) This increase in cases is reflected in the rise in media reporting on the subject (see Table 10.1).

MRSA was not yet a topic for the national press in the UK in the early 1990s. This changed in 1995 after the government had issued a first set of guidelines and after two popular science books had been published (Garrett, 1994; Cannon, 1995) that painted a picture of MRSA against a rather apocalyptic background of plagues and 'superbugs', a term first used in the mid-1980s, 'usually in the context of stories about pesticides and the agricultural use of antibiotics' (Washer and Joffe, 2006: 2145), until, in about 1997, *superbug* became a quasi synonym for MRSA

Table 10.1 Number of reports on MRSA in UK national press between 1995 and 2007

Year	Number of articles	Year	Number of articles
1990	1	1999	64
1991	2	2000	82
1992	2	2001	97
1993	1	2002	216
1994	7	2003	326
1995	21	2004	1221
1996	23	2005	2116
1997	13	2006	944
1998	39	2007 (Jan–Oct)	1304

in the media.² From then on media coverage steadily increased until it exploded around 2004, when the Labour government announced various schemes to tackle the rise in MRSA, and 2005 when MRSA and cleanliness became party political issues in the election campaign.

It has become clear in recent years that infectious diseases are not only a matter of epidemiology, virology and microbiology, but that the politics and biology of infectious diseases, in our case HCAs such as MRSA, interact. As Brian Duerden has pointed out, microbial populations interact with human populations and human behaviour (Duerden, 2006). Human behaviour in turn is, in part, structured by human discourse. In studying discourses of MRSA we want to contribute to advances in two fields: Critical Metaphor Analysis and science and technology studies, especially the public understanding of disease which complements the more established study of the public understanding of science.

1 Methods and conceptual framework

This chapter exploits, develops and empirically assesses an emerging methodological trend in discourse analysis, namely the convergence of Critical Discourse Analysis (CDA) (Fairclough, 1995; Billig, 1996; Weiss and Wodak, 2003) with Critical Metaphor Analysis (see Charteris-Black, 2004; Larson *et al.*, 2005; Wallis and Nerlich, 2005). Using LexisNexis Professional, three data sets were collected which provided us with three synchronic ‘slices’ probing into the diachronic development of the media portrayal of MRSA.

The type of metaphor analysis employed here has emerged from a critique of traditional metaphor analysis in Cognitive Linguistics. It is linked to work on metaphor in social studies of science and the sociology of expectations, especially relating to infectious diseases in humans and animals (Nerlich, 2004; Wallis and Nerlich, 2005; Larson *et al.*, 2005; Nerlich and Halliday, 2007; Washer and Joffe, 2006). The concept of ‘metaphor scenario’ in particular (Musolff, 2006) will be used to analyse media discourses about MRSA in the UK at three distinctive points in time – a time when, as we discovered, MRSA was not yet regarded as a health risk, a time when it became increasingly viewed as a risk to patients in hospitals and a time when the fear of MRSA came to outweigh fears about hospital treatment itself (*BMJ*, 2004).

This chapter investigates how the risks associated with the spread of MRSA were framed by the media and what measures were imagined and implemented to deal with these risks. In 1995 an unknown new risk was framed metaphorically through the personification of various good and evil forces; in 2000 this type of story telling was replaced by real people telling their own stories about fighting the infection; and in 2005 the battle entered a much more political stage. Over time, the issue of cleanliness became more prominent as a ‘weapon’ in the fight against bacterial infection, until it came to be inextricably linked to MRSA in politics as well as in the popular imagination. Why this focus on cleanliness emerged and what it means for the management of HCAI are some of the questions we try to answer in this chapter.

2 1995: personification

Washer and Joffe note in their article dealing with the social representations of MRSA in the UK media between 1995 and 2005 that: ‘In the early articles MRSA is described as an antibiotic or drug resistant condition, thereby providing a close copy of the medical scientific description, with little embellishment.’ (Washer and Joffe, 2006: 2145). Our analysis of the 1995 coverage of the issue in the UK national press seems to contradict this assessment on various levels. As we will show, neither the medical/scientific nor the media description of MRSA was devoid of ‘embellishment’.

It is commonly assumed that scientific and medical discourses constitute a sober, unembellished, representation *of* fact, whereas media discourses are a rather more florid representation *of* facts *as* something else, either fiction or anecdote (see Rheinberger, 1997: 103).³ The following analysis demonstrates that this seemingly commonsensical

distinction does not hold up (see also Bucchi, 1998; Nerlich and Halliday, 2007) and, in particular, that it does not allow us to distinguish between scientific and media discourse. As Rheinberger (1997) and Bono (2005) show, both ‘representation of’ and ‘representation as’ are fundamental to scientific thinking and, we would add, both are fundamental to media communication. As Aldrige and Dingwall have pointed out (2003:438): ‘There is [...] a complex symbiosis between science and spectacle’. Science and medicine commonly explore disease *as* an invasion, the immune system *as* a defence system against foreign invaders, bacteria *as* good or bad, friendly or unfriendly and so on. Rheinberger (1997) therefore argues that scientific activity ‘consists in producing, in a space of representation, material metaphors and metonymies’. In this respect it overlaps with the media, especially when reporting on science and disease (Hilgartner, 1990).

Let us now turn to the ‘representation’ (with or without ‘embellishment’) of MRSA in the 1995 media coverage. Out of a total corpus of 21 articles, only one article mentions the issue of cleanliness. At that time cleanliness was not yet a major topic for debate. The rest of the articles (apart from a subset dealing with hospital league-tables, which will be ignored here) tell remarkably vivid stories of heroes, villains and battle. These narratives about a new ‘superbug’, provoked for the most part by books written by popular science writers, can be read as a mythical story of good and evil framed by a metaphorical war scenario through which popular science tries to explain how bacteria became powerful ‘agents’ that challenge human and technological supremacy. There are three main protagonists in this mythical story of battle and struggle: doctors who are portrayed either as heroes or villains, but who mostly come across as relatively naïve and easily duped compared to the clever bacteria and not so clever antibiotics, the two other protagonists in this myth or metaphor scenario. Bacteria can be good or bad, but they are mostly portrayed as very clever creatures that outwit doctors and display what one can only call (ironically) ‘intelligent design’ based on exploiting evolution in cunning ways. Antibiotics can be a cure or a curse, but they are mostly portrayed as a bit dim, just like the doctors who prescribe them; they are not quite as clever as the bacteria. This narrative strongly contradicts the normal narrative of human victory over nature. ‘Mindless’ replication and evolution are personified and represented as intelligent action on the part of bacteria which triumph over the human and medical mind. The primitive and primordial outwit the modern mind and modern medicine. This reminds one of ‘Orgel’s Second Rule’, namely that ‘evolution is cleverer than you are’.⁴

On the one side of the representational (battle) stage on which the war against MRSA is being fought, are doctors engaging in overkill (overprescribing antibiotics) but losing the war against bacterial disease. On the opposite side are killer bugs fighting for survival and winning the war, using evolution as a clever tactic to outwit the doctors; they invade, colonize and spread. Caught in the middle are antibiotics which are, as one article stressed, undergoing something of a 'crisis of confidence', but also, less metaphorically, patients who are infected with those clever bugs that can outwit antibiotics. Table 10.2 provides an overview of the various 'actors', their 'actions' and the scenario that is exploited in metaphorically framing those actions.

As one can see in Table 10.2, there were four sides in this 'battle against MRSA/bacteria/germs': the doctors (real agents), the hospitals (metonymical agents), the personified bacteria (who attracted by far the most metaphors as 'intelligent agents'), and the (stupid) antibiotics. Patients as victims in this war did not feature much yet.

It was not really surprising to find the use of the conceptual metaphor MANAGING DISEASE IS WAR which has become a common framing device when talking about health and illness (Chiang, 2007; see also Board of Global Health, 2006). More surprising was the use of the conceptual metaphors EVOLUTION IS A TOOL and BACTERIA ARE IMPERIALIST AGENTS to describe the actions of bacteria as clever agents engaged in this war with doctors, patients and hospitals. This echoes Bill Bryson's assessment of bacteria quoted at the beginning of this chapter that '[t]his is their planet, and we are on it only because they allow us to be'.

Table 10.2 The battle scenario in 1995

Agents	Types of action	Metaphor scenario
doctors	they had thought they had <i>won</i> the war against bacterial disease	war
	they [engage in] colossal <i>overkill</i>	war
	they have been <i>fighting</i> it for years	war
	they help it [microbe] to become dominant by eliminating the competition	carelessness
	they have killed off the <i>proverbial goose</i> ...	war
	they dish out antibiotics like <i>Smarties</i>	carelessness
hospitals	hospitals have been <i>under severe</i> pressure from bacterium	contest
	hospitals <i>fight</i> bacterium	war
	hospitals <i>face defeat</i>	war
	hospitals <i>harbour zoos</i> of drug-resistant bacteria	carelessness

Continued

10.2 Continued

Agents	Types of action	Metaphor scenario
bacteria, microbes, bugs, germs	<i>killer</i> bacteria	war
	'the bugs of war'	war
	biological <i>invaders</i>	war
	they are <i>survivors</i>	war
	lethal	war
	deadly	war
	bacteria are <i>fighting</i> back [fighting agents]	war
	they relentlessly eat, divide and multiply, secreting defensive poisons to <i>thwart</i> their <i>attackers</i> , hiding when necessary, and, if all else fails, mutating	war
	they rapidly <i>mutate to withstand</i> chemical <i>attacks</i>	intelligent use of evolution in war against humans
	they <i>kill</i> host cells	
	they <i>take advantage</i> of weakness in the <i>defence</i>	
	they <i>overwhelm</i> us by force of numbers	
	they evolve far more rapidly than homo sapiens	'intelligent design' and intentionality
	they adapt, mutate, evolve...	[evolution is framed as an intentional, clever thing that bacteria engage in]
	they are driven by the <i>maxim</i> 'survive and reproduce'	
	they have acquired the <i>ability</i> to make an enzyme, penicillinase	
	staggering <i>ability</i> of bacteria...	
	they <i>draw</i> plasmids and transposons from the vast mobile <i>lending library</i> in their environments	
	they <i>share</i> new strength with other microbes [social agent]	individual and social intelligence
	'Long before mankind discovered the chemicals, yeasts, fungi and rival bacteria had been <i>making</i> antibiotics and <i>spewing</i> the compounds around newly claimed turf to <i>ensure</i> that <i>rival</i> species couldn't <i>invade</i> their niches.'	intelligent development of 'tools' and 'technology'
they <i>spread, colonise</i>	imperialism	
they <i>recognise</i> no boundaries		
they <i>outwit</i> host immune system		
MRSA	has <i>learned</i> to break down penicillin	'intelligent design'
	has <i>learned</i> to become resistant to methicillin	
	has <i>colonised</i> up to 90% of hospitals throughout the world	imperialism

Continued

10.2 Continued

Agents	Types of action	Metaphor scenario
	is <i>fiercely</i> resistant to hygiene or drugs <i>overcomes</i> drugs <i>strikes terror</i> in hospitals	war, battle, tenacity
Antibiotics	the real <i>enemies</i> are antibiotics they <i>breed</i> disease they may turn out to <i>betray</i> the human race they <i>have upset</i> the balance of nature they <i>turned</i> harmless bacteria into <i>killers</i> they <i>don't want</i> to become resistant – they do so to survive in the fact of needless overprescribing they are <i>going through something</i> <i>of a confidence crisis</i> they <i>exert</i> selective pressure on bacteria	war intentionality war intentionality consciousness

In this war between humans and bacteria everybody seems to be a villain, again something which is not often found in tales about battles between what is usually seen as 'good' and 'evil' – here, by contrast, there are no heroes. The doctors are enemies of patients because they overuse antibiotics; antibiotics are enemies because they turn bacteria into killers; and bacteria are enemies because they kill. This is not a chain of command; it rather is a chain of disaster. In this motley crew the bacteria are by far the smartest agents of destruction using mutation, variation and evolution as a weapon in the war, and, unlike doctors, it seems, they learn from experience. Such descriptions use 'implicit models of evolution' to describe the action of bacteria seen as intelligent agents and designers (Aldridge and Dingwall, 2003).

What can we learn from this metaphorical and narrative framing? What are the actions that doctors, patients and policy makers are invited to envisage? Although no real plan for action is discussed, readers are left with the impression that the only way to deal with MRSA is to fight back against these primordial and intelligent agents of destruction. Bacteria are clever and have to be outwitted – a common trope in scientific discourse about the rise in antimicrobial resistance. But they are described as more than just clever, more than just evolving rapidly. They are described as using evolution as a *tool* in intelligently designing new deadly onslaughts on humanity.

So, what weapons can be used against such brave new bacteria displaying super-evolutionary intelligence? Obviously, overprescribing

antibiotics, those ambivalent medical agents, has to be stopped. Less obviously, we have to give them less occasion to exert their superior evolutionary power, that is, destroy their ecological niches. This means keeping things clean. This issue, only alluded to once in this corpus, becomes central in subsequent media reporting. The 1995 reporting has set the 'scene' and introduced the main characters: let the battle commence.

3 2000: patient voices (and the voice of numbers!)

The corpus for the year 2000 contained 82 articles in total, of which 26 articles were written in the broadsheets and 56 in the tabloids. On some days the *Daily Mail* and the *Express* in particular published whole clusters of articles on MRSA which explored the issue from various scientific and anecdotal angles.

Overall, there was a marked change in the way HCAs in general and MRSA in particular were reported. Whereas in 1995 the unknown was personified in the context of the emergence of a new and still quite mythical risk to human health, in 2000 the risk becomes an actual personal and institutional risk. The personification of battle-savvy bacteria is complemented by patients' personal narratives of battle against infection. The scenery changes too. From a mythological evocation of bacteria on the march we now turn to real places and spaces, from hospital corridors to spaces under patients' beds, where bacteria lurk. The tabloids in particular, as one can expect, focus on personal interest stories: 15 stories about people dealing with or dying from MRSA were found in the tabloids and only two in the broadsheets.

The main actors involved in the battle against MRSA change too. Not only is there now a one-to-one battle between patients and bacteria; institutions too become major players and spawn a host of metonymically based personifications. Hospitals as institutions, rather than doctors as individuals, are now pitted against bacteria. Between 1995 and 2000 there was a marked rise in HCAs and a political response was needed. In January 2000 the Public Health Laboratory Service Board published a report saying that one in every 10 patients in acute-care hospitals is infected after admission and that up to 30% of HCAs could be prevented through effective infection control programmes (PHLS, 2000). In February the National Audit Office published figures that reverberated in the press coverage throughout the year 2000 (we found 40 items in our corpus) and are still quoted today. In particular it found that about 5000 people a year died of HCAs and mentioned hand-washing as one of the most important measures in the control of MRSA (NAO, 2000).

There was however also continuity between 1995 and 2000. Bacteria are still discussed as agents, especially when scientists or scientifically trained people speak out or are quoted. The war and contest scenario shifts slightly towards another scenario – that of crime. Doctors in particular are metaphorically ‘criminalized’ (‘Doctors are among the biggest culprits’; ‘shamed as the worst offenders’; ‘some of the culprits for transmission of infection are doctors’), but so are bacteria (they ‘stalk’, they ‘lurk’, are ‘at large’ etc.). Another scenario closely linked to struggle and contest is also activated, namely the race scenario, a race in which the bacteria always seem to be winning over doctors and hospitals (‘bacteria are always one step ahead’; ‘bug would change form and stay one step ahead of science’; ‘medical science is struggling to catch up’). A somewhat more creative quasi-military metaphor is used by two scientists who both say that MRSA is a ‘timebomb’, thereby stressing the urgency of action needed to fight against its spread. This more abstract concept supports the mobilization of patient and victim voices by the media which also represent increasing urgency in the management of MRSA.

Whereas 1995 was mainly about doctors/hospitals and bacteria engaged in a mutual but rather abstract struggle, 2000 is about concrete hospitals, patients and cleanliness. Unlike in 1995, when only specially coated ‘killer tiles’ appeared as remedies against HCAI, various ways of dealing with MRSA are discussed, from alternative medicines to test-tube antibodies. But the message that cleanliness might be key to eradicating MRSA becomes central. ‘Standards’ and ‘rates’ of cleanliness are mentioned in almost every text from our corpus and form the focus of discussion in some tabloid articles. Hygiene is discussed as the central measure to beat ‘superbugs’, and failure to maintain it by some hospitals draws severe public criticism.

However, the 1995 theme of bacteria as outwitting humans continues. We can read for example that ‘The bug laughs off all attempts to control it with antibiotics’ (*Mirror*, 17 November 2000) and that ‘Some [bacteria] developed little pumps that squirted out the antibiotics faster than they could get in. Others developed chemicals that chopped up penicillin, and grew thick cell walls that made it impossible for the antibiotics to penetrate them’ (*Mirror*, 22 May 2000). Bacteria are not only clever in using evolution as a tool, they also devise metaphorical machines and technologies that can compete with advances in ‘real’ medical technology. The metaphorical scenarios of race and competition come to the fore here. In 2005, the competition frame came to dominate the debate, but in the sense of political parties competing for supremacy, using MRSA as a clever tool to gain political advantage.

4. 2005: politics and policies

In 1995 a new threat to human health had become visible to the media and a mythological story of good and evil was told in which bacteria, antibiotics, doctors, and hospitals were the real and metaphorical agents locked in a battle of wit. In the year 2000 a new agent entered the scene: the patient. The mythical story of bacterial supremacy was supplemented by a purification myth in which the doctors, already discredited for letting themselves being outwitted by bacteria, became criminals, and more than that, became ‘unclean’. In 2005 finally two other figures enter the scene: politicians who try to ‘wipe out’ MRSA and wipe out their opponents by promising to clean up MRSA, and matrons, the new guardians of purity in the war against the bug. Two prototypes in particular are invoked: Florence Nightingale and Hattie Jacques (an actress famous for playing the role of Matron in the comic *Carry on* series of films). Doctors are almost absent from the debate, but nurses and patients assume more centre-stage roles. Let us now look more closely at this development.

As Table 10.1 shows, the national press output for 2005 on the issue of MRSA was enormous – 2116 texts. To make the corpus manageable for a qualitative analysis,⁵ we focused on the highest output for one month, April (387 articles), and focused yet again on the output of one tabloid and one broadsheet that had consistently published most articles on MRSA, namely the *Daily Mail* (31 articles) and *The Times* (28 articles).

In the autumn of 2004 the then Health Minister John Reid had set as a government target that blood-borne MRSA infection rates be halved by 2008. This, together with the publication (Department of Health, 2004a) of ‘A matron’s charter: an action plan for cleaner hospitals’, a ‘Clean your hands campaign’ and a policy document entitled ‘Towards cleaner hospitals’ (Department of Health, 2004b) had put MRSA and cleanliness on the political agenda. Both issues became the focus of the 2005 General Election.

May 5 2005 was the day of the election. Leading up to this date, April 2005 was the month during which political campaigning became most intense. April 12 was the day that the Conservatives published their Manifesto, which attracted a lot of press coverage, followed by Labour on April 14. One of the central images of the Conservative campaign became a poster declaring: ‘Under Blair, there have been 5,000 deaths every year from dirty hospitals. Imagine five more years of it.’ Or: ‘I mean, how hard is it to keep a hospital clean?’ Cleanliness became central to the debate surrounding the threat posed by HCAs.

The Times reported that 'Nurses demand a clean uniform on every shift to beat superbugs' (27 April 2005) and the *Daily Mail* wailed that we would need '20 years to wipe out the superbug' (27 April 2005). The scenario of battle against the microbe is now linked to that of cleaning and purity in various ways, especially via the expression 'wiping out' which has military as well as cleaning associations (Royal College of Nurses, Wipe it Out campaign, 2005). Cleanliness becomes a possible, plausible and above all 'commonsensical' weapon to 'beat' the superbug. The phrase 'wipe out' has been associated both with the metaphorical framing of war, especially the 'War on Terror' in which the United States wishes to 'wipe out' terrorism (Lakoff, 2001) as well as with the framing of germ-warfare in which we all engage now in our homes where we use disinfectants and antimicrobial 'wipes' (it is perhaps no coincidence that George Bush is reported to use a hand-sanitizing product after he shakes hands with his guests (Leibovich, 2006)). More generally 'cleansing' has become a metaphor used in wars from Hitler to Bosnia and beyond. Setting out to 'wipe out' MRSA, in a context where such actions are not only metaphorical but real and accompanied by ubiquitous images of cleaning, hand washing and cleansing gels, therefore demonstrate political leadership and political will.

War and blame too became closely linked. Promising to wipe out/defeat/beat MRSA becomes a party political issue and one of mutual blame, with the Conservatives blaming Labour for not keeping their promises to make hospitals cleaner and MRSA free, and Labour blaming the Conservatives for not having done enough before 1995 to eradicate MRSA. What *The Times* called the 'Superbug battle' (15 April 2005) is no longer a scientific battle against clever bacteria but a battle of blame between politicians and patients where 'Cleaning up MRSA' (*The Times* headline, 16 April 2005) has become the ultimate goal.

By being discussed in the election campaign, in meetings of non-governmental organizations, on various popular television programmes from *Casualty* to *Panorama*, to under-cover documentaries on Channel 4, MRSA became the topic of the day in 2005 and an acronym, like BSE or GM or FMD, that everybody is now familiar with in the UK. One polemicist wrote an article for *The Times* on 22 April entitled (in its online version) 'MRSA: metaphor for a diseased body politic'⁶ and asked: 'How has such a microcosm as the MRSA bug been blown up into one of the biggest issues in the general election?' The answer might be found in what he himself calls the 'politics of fear' used by the Conservatives. Another answer might be found in the politics of blame in which both parties, Labour and Conservative, engaged.

Both *The Times* (a broadsheet) and the *Daily Mail* (a tabloid) discussed cleaning as a weapon in the war against MRSA, but they both, to varying degrees, also highlighted other issues, such as bed occupancy and government-required performance targets – an issue explored also by the Conservatives. Both newspapers therefore stressed scientific and policy uncertainty.

Despite the uncertainties surrounding the issue MRSA is represented in 2005 as something controllable. Politicians treat MRSA rates like taxes – you can at least pledge to bring them down. Overall, in 2005 MRSA became a political issue not only for political parties but also for non-governmental organizations and patients at large who became more politicized. Cleanliness became the focus of political and popular debate. It was seen as a commonsensical way of dealing with the complex issue of the rise of rates in HCAs (Koteyko *et al.*, in press.). The hyperbole of the war against super-clever bacterial agents, evident in 1995, is replaced by what seems a straightforward method of dealing with HCAI. As has become evident since, this was perhaps complacent and some scientists use a different type of hyperbole to awake policy makers from their policy slumber. A colleague of ours at the University of Nottingham, for example, has introduced the metaphor of the ‘post-antibiotic apocalypse’ (see Nerlich, in prep.).

5. Conclusion

The ‘representations’ of MRSA in the UK national press between 1995 and 2005 can be seen as a drama in three acts, drawing on various genres, stereotypical plot lines, characters and other historical or fictional narratives. In the first act the *dramatis personae* are personified forces of nature as well as earthly creatures fighting them, namely doctors and hospitals engaged in a battle of evil against good, where a new type of intelligence is pitted against stupidity. In the second act the victims of the personified bacterial forces are introduced and the doctors and hospitals emerge as perpetrators of crimes against them, a crime that is not a direct act of killing but rather a crime of omission: cleaning hands or wards. In the third act the malignant forces of politics try to exploit the evil forces of nature for their own ends, but the erstwhile victims, patients and nurses that were on the sidelines in the first two acts, empower themselves. A mediator between the doctors and the potential victims of MRSA emerges and is given political and symbolic power: the ‘modern matron’, framed by the factual but mythically enhanced narrative of Florence Nightingale and the fictional one

of Hattie Jacques: both evoke images of empowerment, cleanliness, and strength which are needed to finally defeat the evil and unclean forces of nature. Throughout the three acts, the various *dramatis personae* engage in war, battle and struggle, but also in racing and crime, the overall metaphorical scenario being one of contest. The narratives that this three-part drama draws on are the struggle between heroes and villains, between contamination and purity and between intelligence and stupidity.

Metaphors, especially when linked to metaphor scenarios, allow us to understand complex phenomena in terms of everyday experiences. They and the narratives they tie together also have a performative force. As Bono has pointed out, while 'metaphors [...] serve as 'invitations to action', [n]arratives are users' manuals for putting metaphors into action, for learning to work with and through metaphors.' (Bono, 2005: 137) Representing bacteria *as* intelligent agents; representing the management of HCAs *as* a war; representing cleaning *as* the ultimate solution; representing matrons *as* guardians of purity – all this has implications for behaviour and action, funding and policy making.

In this fight against MRSA cleanliness has become a central feature, despite the lack of scientific evidence and the general scientific uncertainty surrounding its effectiveness.⁷ The issue of infection control, and containment of MRSA in particular, relies on the multiplicity of factors such as isolation measures, hand-washing by hospital staff, screening of patients upon arrival, screening and decolonization of healthcare workers, of which cleanliness is only one, although an important component (Loveday *et al.*, 2006). As Voss states (2004: 521): 'these measures work only when used in a concerted manner. Thus to single out one or a few measures, especially on the basis of limited evidence, risks potentially effective measures being neglected in future guidelines.' Focusing on cleanliness alone may allow bacteria to reassert their cleverness, an issue which was the focus of media debate a decade ago, and should perhaps be stressed again today.

Notes

1. The chapter was written as part of the ESRC project 'Talking cleanliness in health and agriculture'. Grant number: RES000231306.
2. The use of the term is currently changing, as it is applied more generally to other HCAs, especially after recent rises in *Clostridium difficile*.
3. Hilgartner (1990, 2000), for example, studies scientific advice as a type of performance, a topic we shall come back to below.
4. See http://en.wikipedia.org/wiki/Orgel's_rule.

5. The overall coverage for 2005 was analysed separately with quantitative methods of corpus linguistics (see Koteyko *et al*, in press).
6. On the metaphor of the ‘body politic’, see Musolff (2004).
7. In scientific literature, cleaning is also introduced as the most ‘common-sensical’ infection control measure (see Anonymous, 1972) to be undertaken in an era of rising antimicrobial resistance.

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