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A Further Species of Trouble? Disaster and Narrative[1]

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[1] We are grateful to Maggie Mort for the invitation to John Law to respond to the work of Kai Erikson at a Workshop 'Reflections on Disaster and Trauma' held at Lancaster University on Wednesday 15th October 2003, and organised by the Institute for Health Research and the Centre for Science Studies at Lancaster University, and supported by the NHS Health Development Agency. We are most grateful to Cathy Bailey, Annemarie Mol, Maggie Mort, Kath Smart, Laura Watts and Sue Wrennall who have helped us to formulate many of the arguments that follow.

A New Species of Trouble

Disasters visit those who don't expect them but they do not strike entirely at random. Discharged along the lightning conductors that protect power, they preferentially affect the underprivileged: third world inhabitants; ethnic minorities; physical and manual workers; women, or isolated old people. 'The issue', writes Charles Perrow in the 1999 'Afterword 'to his Normal Accidents 'is not risk but power'[2]. The greater the distance, social, political, economic, cultural and geographical, from the powerful, the greater the vulnerability if something goes wrong. Hazards are moved offshore. Peripheral processes are subcontracted to remote locations, and to less protected and cheaper workforces. And groups that are isolated, whether by design or not, are particularly vulnerable.

From the horrors of Bhopal, through earthquake vulnerability in California, to the 1995 heat wave in Chicago, there are many studies that document these processes of differential vulnerability at work[3]. However none are more eloquent than those of Kai Erikson. His 1976 book, Everything in its Path[4], is a meticulous and chilling account of a disaster visited on Buffalo Creek, West Virginia in February 1972. Buffalo Creek was, is, a mining valley deep in the Appalachians. One dismal wet winter morning a roughly built levée at the head of the valley holding back millions of gallons of waste water gave way, and the resulting flood was channelled into a maelstrom of destruction that surged for miles down the valley. 125 died, 4000 out of 5000 homes were destroyed, and the heart was torn out of a closely-knit community. The book, movingly and disturbingly written, charts not only the events of that dreadful morning, but the subsequent disintegration of communality in a process that Erikson calls 'collective trauma'.

> '"I"', he writes, 'continue to exist. "You" continue to exist, though distant and hard to relate to. But "we" no longer exist as a connected pair or as linked cells in a larger communal body.'[5]

As a vital part of its argument the book also traces the underprivileged history of the remote mountain communities of Appalachia, and the growth of their disastrous and exploitative relations with corporate America once the coal in those mountains became open to exploitation with the development of the railways. The communities in Buffalo Creek, suggests Erikson, were already vulnerable for social, economic and political reasons, long before the containment gave way and physical destruction was unleashed upon them.

Erikson has subsequently explored a wide range of other instances of community destruction caused by technological or human-induced disaster. In many the destruction of community was effected not by some immediate and visible catastrophe but by the insidious work of hidden toxic agents. For instance, in the first chapter of A New Species of Trouble[6], he describes the awfulness wreaked upon the Ojibwa, the native people of Grassy Creek, Ontario, when methylmercury released by a paper and pulp plant entered the local environment poisoning the people, their river, and what remained of their social fabric after two hundred years of interaction with European interests and settlers.

Erikson's focus, then, is on the destruction of already vulnerable communities and in particular on what he calls a new species of trouble. So what is this new species of trouble? His answer comes in three parts.

First, it is the consequence of human-induced disaster: a broken dam; environmental pollution caused by methylmercury; the radiation from the Three Mile Island power station; leakage from the tanks of a filling station in Fort Collins, Colorado; the pollutants of Love Canal; the theft of funds from migrant workers in a small town in Florida. He argues that:

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[2] Perrow (1999), page 360.

[3] See, for instance, Bolin (1999), Shrivastava (1987), Rajan (1999), and Klinenberg, (2002).

[4] Erikson (1976).

[5] Erikson (1976), page 154

[6] Erikson (1994).

> 'Natural disasters are almost always experienced as acts of God or caprices of nature. They happen to us. They visit us, as if from afar. Technological disasters, however, being of human manufacture, are at least in principle preventable, so there is always a story to be told about them, always a moral to be drawn from them, always a share of blame to be assigned.'[7]

Natural disasters may need explaining, but not as much as the decision by the Pittston Corporation, owner of the Buffalo Mining Company, to build a large and more or less unengineered containment for waste water at the head of a densely populated valley.

Second, he argues that the destruction of community engendered by the new species of trouble involves silent toxins. These:

> '… contaminate rather than merely damage; they pollute, befoul, and taint rather than just create wreckage; they penetrate human tissue indirectly rather than wound the surfaces by assaults of a more straightforward kind. And the evidence is growing that they scare human beings in new and special ways, that they elicit an uncanny fear in us.'[8]

In the new species of trouble whatever happens, happens silently, insidiously. Perhaps it starts from outside but it ends up inside, within us, within our communities. And one of the consequences, argues Erikson, is a kind of lasting dread: a fear without a name that does not go away.

So, third, he suggests that the new species of trouble is also destructive of sense. The survivors at Buffalo Creek were overcome with a loss of sense, but the effect of silent destruction is even worse. It leads to loss of sense in the orderliness of both nature and society:

> 'We generally use the word "disaster" in everyday conversation to refer to a distinct event that interrupts that accustomed flow of everyday life. "Disasters" seem to adhere to Aristotle's rules of drama. They have "a beginning and a middle and an end." They "do not begin and end at random." They have, "a certain magnitude" yet are "easily taken in by the eye." They have plot, in short, which is "the first principle and as it were the soul of tragedy."'[9]

By contrast:

> 'Toxic disasters … violate all the rules of plot'.

Senseless, they generate epistemological confusion and ontological uncertainty. Who am I? What is the world? Why is the world capricious? Why has its order broken down? And then a kind of loss of morale, a kind of anomie that extends not only into the rules of the social but also into the natural order. There is demoralisation, and the destruction of communality.

Foot and Mouth, 2001

Erikson attends primarily to those who are least privileged and most isolated, to communities that have already been weakened and where a human-induced disaster is the final straw. At the same time his diagnostic intuitions – that toxic and human-induced disasters are particularly destructive of sense and community – resonate in other circumstances. And this is our interest. We are concerned with the epidemic of foot and mouth disease that visited the UK in 2001. Our argument is that this can be understood as a version of Erikson's 'new species of trouble', but with some important and instructive differences. We make our

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[7] Erikson (1994), page 142.

[8] Erikson (1994), page 144.

[9] Erikson (1994), page 147.

argument by drawing on the accounts of participants in a range of electronic and other publications.[10] But a note, first, on the outbreak.

Spreading unseen and initially unrecognised through the national networks of animal transport, the virus infected 2030 premises over a seven-month period, led to the slaughter of six million animals, and cost the UK a total estimated at £8 billion[11]. The outbreak was disastrous for many, especially in rural communities[12]. Important here is the fact that many in the farming community were economically and socially stressed before the outbreak. In part because of falling global prices and changes in the exchange rate between the £ sterling and the Euro (farming subsidies are calculated in Euros) farming incomes had been in decline since 1995 (they had fallen from about £5bn in 1995 to about £2bn in 2000)[13]. Many hitherto prosperous farmers in both the uplands and the lowlands were living on a combination of hope, past earnings and borrowed money, and the economic conditions for many were catastrophic. This was a community or an industry in crisis even before the foot and mouth epidemic.

Though arguably less isolated than the residents of Buffalo Creek or the Ojibwa (a point to which we will return), we take it that much of Erikson's argument applies here: that the foot and mouth outbreak can be understood as a version of the new species of trouble. This is partly because the epidemic, though distributed widely across England, Wales and the Scottish southern uplands, was particularly virulent in two main areas: Devon in the south-west of England; and north Cumbria, Dumfries and Galloway, in an area around Carlisle that straddles the border between England and Scotland. In these regions, and especially in north Cumbria, the outbreak persisted for many months in upland areas where many parts of the farming community were already suffering severe depression both personally and economically.

BBC Radio Cumbria was in the eye of the Cumbrian storm, and in August 2001, while the outbreak was still smouldering, it published a book, Foot and Mouth, Heart and Soul[14]. This was composed of personal accounts of the outbreak in Cumbria. Here is an excerpt from the Introduction:

> 'Cumbria was hard hit. Harder hit then any other part of the UK. The virus swept through the north of the county like a tornado, swallowing everything in its path, leaving a smoky trail of misery, disbelief and devastation. Neighbours of the afflicted barricaded themselves in and gazed on in trepidation through the haze of disinfectant, doing all they could to stop such a brutal violation of their own farmsteads. At times it seemed that there would be no livestock left standing between Shap and Moffat. Then came the ripple effect. Except the ripples were more like tidal waves, leaving in

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[10] There were both formal inquiries into the foot and mouth outbreak, and a very large volume of testimony, printed and electronic. The formal inquiries include those of the 'Lessons to be Learned' Inquiry (Foot and Mouth Disease 2001: Lessons to be Learned Inquiry: 2002), the Policy Commission on the Future of Farming and Food (2002), the House of Commons Committee on Environment Food and Rural Affairs (2002), The Royal Society (2002), and the National Audit Office (2002). See also the regional studies by Cumbria Foot and Mouth Disease Inquiry (2002), and analogous reports from Devon (Mercer: 2002) and Northumberland (Northumberland County Council: 2002).

[11] The figures are contested. See Foot and Mouth Disease 2001: Lessons to be Learned Inquiry (2002), and for a somewhat lower figure (perhaps £6.0 billion), Thompson et al., (2002).

[12] We are most grateful to farmer and sociologist Sue Wrennall for her careful comments on an earlier draft of this paper. Our account of the economic and social circumstances of Cumbrian farmers reflects her comments in several important respects.

[13] See Policy Commission on the Future of Farming and Food (2002), page 14.

[14] See Graham (2001).

> their wake a tourist drought, empty hotels, lay-offs, and a rural economy straining under new and unprecedented pressures.'[15]

In this paper we offer neither an account of the development of the epidemic nor of its larger consequences. (There are major policy-related and academic studies of the political, economic, social and health-related causes and consequences of the epidemic both nationally and in Cumbria[16].) Instead, our concern is to argue that the epidemics in Cumbria and Devon may be understood as examples of the 'new species of trouble', but with a difference. Thus in what follows we use limited material to think about the character of the silent toxicity of the outbreak; about whether or how the epidemic was human-induced; and whether and in what ways it was characterised by loss of meaning or plot. Finally we consider whether the epidemic led to breakdown of communality. In each case we argue that Erikson's focus is useful – but also that it needs to be adapted and moved from its functionalist foundations.

Foot and Mouth: A Silent Toxin?

Did foot and mouth come like a silent toxin? And the answer is yes. In part it did. But perhaps only in part.

Like methylmercury it came silently to the farms. And worse, it spread erratically, capriciously. No one was safe. By the time it was detected it was far too late. It was time for the vets to call the slaughtermen. And even worse than methylmercury, it was infectious. The danger lay everywhere, uncertainly. Friends, neighbours, the milk lorry, the postman, the vets, the wind itself. Here is testimony from Devon:

> 'Farmers were so terrified of getting the disease that they barricaded themselves and their families in for several weeks. Even when the initial fears subsided, young people were allowed back to school but were not allowed out in the evenings. Some were actually sent away to stay with relatives until Foot and Mouth subsided.'[17]

And here is an excerpt from the Cumbria County Council investigation:

> 'The CRE [Centre for Rural Economy] has undertaken research in the Northern Fells to study how life was affected on farms and amongst those living in rural villages. What emerges from the farm study is the creation of a world of isolation driven by an overwhelming concern to keep the virus at bay; not to leave any opportunity for the

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[15] Graham (2001), page 5.

[16] The volume of academic work on foot and mouth is large. See, inter alia: the studies at the School of Environmental Sciences at the University of East Anglia on the experiences of communities and their explanations for the epidemic (for instance Poortinga et al. (2004)), and on the spatial implications of the epidemiological models used to determine culling policy (Bickerstaff and Simmons (2004)); the studies of the implications of the rhetorics and imageries of war used in the 'fight' against the disease undertaken at Nottingham University (Nerlich et al. (2002) and Nerlich (2004)); investigations from the Centre for Rural Research at Exeter University on the impact on the wider countryside economy, (Turner and Sheppard (2001)); work, again on the larger effects on the rural economy, but also on government responses to the outbreak and longer term agricultural policy, from the Centre for Rural Economy at Newcastle University (e.g. Bourklakis and Allinson (2003), Lowe et al. (2001), Ward et al.(2004), Donaldson et al. (2002; 2004), and Phillipson et al. (2004)) and Aberystwyth University (Scott, Christie and Midmore (2004)); studies of the counterproductive character of the disease-free policy regime, from the ESRC Centre for Business Relationships, Accountability, Sustainability and Society at Cardiff University (Campbell and Lee (2002; 2003)); and work at Lancaster University at the Institute for Health Research on the health effects of the epidemic in Cumbria (reported in Mort et al, (2004), Bailey et al, (2004) and Convery et al (2004)), and from the Sociology Department both on the farming 'taskscapes' destroyed by the epidemic and its culling (Wrennall (2002)) and on the character of the outbreak as a 'normal accident' in agriculture (Law (2005)).

[17] Mrs P Rudge, cited in Mercer (2002), page 54.

> organism to be spread by inadvertent contact. Thus families tended to become confined to their farms even before this became enforced by the FMD restrictions. Children were sent to stay away or kept off school. Diversified off farm businesses were closed or kept in operation by the 'away posting' of one member of the family. Visits to family, friends or social venues virtually came to a standstill.'[18]

This, then, sounds like silent toxicity and its social consequences. Erikson quotes Winston Churchill on the use of poison gas and observes that 'It is furtive, invisible, unnatural.' ((1994), page 150). He adds that:

> 'Toxic poisons provoke a special dread because they are stealthy and deceive the body's alarm systems, and because they can become absorbed into the very tissues of the body and crouch there for years, even generations, before doing their deadly work'[19]

We've already seen that as a part of this he argues that toxic poisoning erodes the Aristotelian rules of good plot, a theme to which we will return shortly. But there are two ways in which the foot and mouth virus is not quite like the toxins described by Erikson. One, it didn't and doesn't infect people. Animals were culled in their millions, and thousands of livelihoods destroyed. But people didn't die, not directly. And two, once it finally went away, it really went away. The citations above (there are more below too) reveal the horror of the uncertainties that led farmers to barricade themselves into their farms and try to avoid all contact with neighbours, friends and family during the course of the epidemic. But while the psychological and social scars may remain, the epidemic indeed came, in the end, to an end.

This suggests that the narrative effects are subtly different from those described by Erikson. The Aristotelian demand for a beginning, and particularly a middle, to the plot were indeed not met. But strangely, there was, months later, an end to the disease-related part of the story. With the virus gone the story of its contamination came to an end. Perhaps, then, the possibility of sensemaking was restored, albeit after an agonising period of suspense.

Foot and Mouth: Caused by Human Action?

In Erikson's account the new species of trouble results from human action: a badly-built dam or a faulty nuclear reactor demand an account or an explanation. If this fails to appear then orderliness and trust are undermined. This argument intersects with his attention to silent toxins. Combine human agency and silent toxins, and the malevolent mix undermines trust in order and the accounts of order. Erikson:

> 'It will come as no surprise, surely, that people … can easily lose confidence in officialdom, not only in designated spokespersons but in certified experts as well. Bruce Dohrenwend, who headed the task force on behavioural and mental health effects of the President's Commission on the Accident at Three Mile Island, thought that the sharp decline in respect for and trust of public officials was "one of the major findings, perhaps the major finding" of his various inquiries …'[20]

He continues:

> 'Here's a prim, middle-aged woman, made blunt by a sense of urgency: "I think – should I say it? – I think that's bullshit. I really do. I think it is. That's how I feel about it. 'Everything's under control.' Bullshit. Nothing's under control. I don't believe anything they say, if you want to know the truth. I do not believe anything I hear from them."'[21]

We cite this because this kind of statement appeared time and time again in the course of the foot and mouth epidemic:

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[18] Cumbria Foot and Mouth Disease Inquiry (2002), page 76.

[19] Erikson (1994), page 150.

[20] Erikson (1994), page 154.

[21] Erikson (1994), page 154.

> '"...night after night on television news we had Jim Scudamore or Mr Brown, sometimes the Prime Minister, Professor King, it is under control, it is completely under control, it is definitely under control and we felt absolutely insulted and patronised by these lies that we were told. And furthermore it did a great deal of lasting damage because it meant that we are all now so completely cynical about anything the Government says. It has destroyed trust, trust takes years and years to build up and it can be destroyed overnight, and that is one thing that happened."'[22]

So the presenting symptom is lack of trust in experts. But why does the public not trust scientists and other experts? The idea grew up in the 1980s and the 1990s that failure to value expertise reveals a deficit in the competence of the public: if only people properly understood science then, or so the argument ran, they would appreciate its self-evident benefits. The work of Brian Wynne and his collaborators shows that this hope (shared by the Royal Society amongst others[23]) is quite misplaced. People, they argue, are not dim, unenlightened and uninformed. They tend to know perfectly well what they think about experts. And this means that they tend to be sceptical when they are told (to take an obvious example) that GM foods are good for them. Experts, they suspect, play their paymasters' tunes. Further, they find that on the ground experts reveal a lack of practical expertise. Wynne and his collaborators argue that it is better, then, to talk of 'the public interpretation of science' than to assume the public don't understand the arguments in the first place[24].

What should we make of this in the context of disaster and its causes? In response to this question we want to make two brief points. The first is that the credibility problems of experts in technoscience are part of a larger process. Narratives about the undermining of foundational certainties in modernity suggest that this erosion has occurred for a variety of reasons, including the fact that there are many competing sources of authority[25]. People consult friends, relatives, the media, technoscience, general practitioners, alternative healers, women's groups, trade union meetings, the internet, not to mention their own local experience and practice. Here is a speaker from Cumbria:

> 'MAFF had the insensitivity and audacity to send farmers a booklet telling them about the "Welfare Of the ewe at lambing time" at the very time when heavily pregnant and actually lambing ewes were being driven up the tail boards of wagons to go for slaughter, dropping their lambs as they staggered up. Farmers were also obliged to stand by and watch lambs drowning in waterlogged fields, not being allowed to move them to the homestead to care for them.'[26]

And this comes from Devon:

> 'In the event, local people knew far more about the area, the science and technology [than] the so-called "experts".'[27]

The second point grows out of the first. It is that this tells us that the boundaries between the natural and the social are being eroded in practice if not in theory. And a lot is at stake here, politically, emotionally, and intellectually. To cut straight to the last of these categories, there is much evidence to suggest that the explanatory divisions between nature and culture don't hold up[28]: that we live, as Donna Haraway might put it, in natureculture. This is a point that

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[22] Foot and Mouth Disease 2001: Lessons to be Learned Inquiry (2002), page 81.

[23] In the UK this originated with the Bodmer Report (1985).

[24] Wynne (1988; 1996); and Ellis and Waterton (2005).

[25] On these larger narratives see, for a recent example, see Beck et al. (2003) and the exchange that follows, together with the earlier literatures on the so-called 'risk society' (for instance (1992).)

[26] Almond (2002).

[27] Aldridge (2002)

[28] See the growth in interest in nature and culture witnessed by the burgeoning list of social science publications including, for instance, the recent special issue of The Sociological

has also been explored in studies of the 'risk society' which consider the way in which what counts as nature is no longer seen as 'natural', coming instead with social relations already attached. In this way of thinking what was natural comes to act unpredictably in part precisely because it is caught up in the social, and it works in ways that are opaque and contested. The divisions between nature and culture are no longer systematically and consistently sustained[29].

We cannot pursue this point in detail here but in the context of foot and mouth it deserves two brief comments. The first is that it is more or less impossible to offer an account of the causes of the outbreak if we insist that there is a clear boundary between the natural and the social. The virus was, yes, 'natural' – but even this needs qualifying since the variant that caused the epidemic appeared in South India in the early 1990s almost certainly in a mutation arising from the domestication of animals. It spread slowly from South India to reach the UK in 2001 as a result of the international trade, legal and illegal, in meat and meat products. And it caused an outbreak in the UK as a result of a long-standing policy enforced by the WTO. This distinguishes, in a manner recommended by the OIE, the Office International des Epizooties, between three classes of countries: those with foot and mouth disease; those free of it with vaccination, and those free of it without[30]. The status of a country in terms of this classification has drastic trade and economic implications. This was: why the UK had unvaccinated herds running into tens of millions of beasts; why the national herds and flocks were so vulnerable to the virus once it arrived; and one of the reasons why vaccination was not pursued as a policy to control the epidemic. And (to blur the division between the natural and the social still further) it is also partly why it made sense for the cattle industry in the UK to breed herds able to grow, and produce quantities of milk beyond the dreams of third world farmers. Herds which, however, only made good economic sense in the absence of endemic foot and mouth.

If the boundary between the natural and the social is obscure, contested, and probably unsustainable at least in general, then the search for simple causes is both tempting but chronically open-ended. This is our second point. The reason for this is that there are so many candidate contributory causes to the epidemic. Or, to make the same point in a different idiom, it is because the whole is better seen as some kind of emergent effect which defies explanatory reduction into either nature or culture. This is the view of the major 'Lessons to be Learned' Inquiry:

> 'During the course of the Inquiry we have been faced with criticism of the Government's policies and actions throughout the epidemic. I recognise the frustration and anger felt by so many. I understand the desire to see someone blamed. I also understand that, farmers in particular were subjected to stress and sometimes to insensitive behaviour on the part of officials. But, equally, I am satisfied that the officials I have met in Whitehall and in the regions were trying to cope in sometimes desperate, almost impossible, circumstances.
>
> The nation will not be best served by seeking to blame individuals. Rather we should seek to apply the lessons to be learned in a manner that will contribute to changes in collective attitudes and approaches. In that way we can, in future, approach the shared task of being better prepared and better able to respond with speed and certainty.'[31]

This begs a whole variety of contested explanatory issues, for instance to do with the competence of MAFF (later DEFRA) policy and practice. But the larger point is spot-on. If

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Review (see Szerszynski et al. (2004)), and books by authors including Macnaghten and Urry (1998), Whatmore (2002), Haraway (2003) and Latour (2004).

[29] See Beck (1996), Wynne (1996), and Macnaghten and Urry (1998).

[30] For a quick account, see Rweyemamu and Astudillo (2002).

[31] Foot and Mouth Disease 2001: Lessons to be Learned Inquiry (2002), page 7.

natureculture is complex and emergent it becomes difficult to fix particular causes. All become contestable. And on some accounts, non-experts also recognise this[32].

At first sight this seems to undermine Erikson's argument about the role of human action and responsibility for the case of foot and mouth. If human action was not clearly responsible for the outbreak, then perhaps the outbreak does not count as a version of the new species of trouble? But things are a little more complicated. This is because what lies behind Erikson's interest in human or social agency is not simply the discretionary character of the latter (though this is important), but also the insight that uncertainty helps to produce this new species of trouble with its lack of trust in the regularity of the natural and the social. And though Erikson doesn't put it in this way, the confusion of natureculture precisely works to erode the certainties. It fits – indeed contributes to – the new species of trouble.

Foot and Mouth: Loss of Sense?

Did the foot and mouth outbreak lead to a loss of sense? This is the third part of Erikson's argument about the new species of trouble. We will need to nuance this, but our first answer has to be yes. In the explanatory vacuum generated by ontological and epistemological uncertainty many commented on the silences, the silence of the land, usually filled with livestock and the sounds of farming activity[33]. A witness wrote into the Devon Inquiry to say that after the culling:

> 'We had a silence around us, a dog with no work, hay silage and straw with nothing to feed or bed.'[34]

Peter Frost-Pennington was a temporary veterinary officer in Cumbria:

> 'It was not only the blood, the tears, the mud, the acrid plumes of smoke or the stench of rotting carcasses. It was also the silence. The imprisonment. The lack of information. The frustration and hopelessness. The fear. The waiting.'[35]

Silence is, well, silent. It does not witness itself in words. Or only indirectly. And the words, when they come, may be distressing. As we read them we risk a kind of voyeurism. Here, for instance, is a fifteen-year old girl, the daughter of Cumbrian farmers:

> 'My brother went to stay at my gran's as he didn't want to be at the farm when the animals were destroyed. He found the situation very distressing. Even now he doesn't want to talk about it and told gran he would try to think we had sold them so he wouldn't have to think about what had really happened. Going home on the Sunday afternoon was very strange. The farm was so quiet with no animals, just empty sheds.'[36]

An 'Outdoor Instructor' observed that:

> 'No words can describe such scenes'[37]

For those involved in farming caught up in the tragedy the words lacked. The narratives of farming, this particular version of the Aristotelian plot with its beginning, its middle and its end, went into suspension:

> 'Short term: my children didn't eat, sleep, learn, play or do anything 'normally'. I sympathise with every refugee I see on the News now; like them I was living in fear for my family and home'.[38]

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[32] See Poortinga et al. (2004).

[33] This is discussed at some length by participant and sociologist Wrennall. See her (2002).

[34] Mercer (2002), page 77.

[35] Frost-Pennington (2001b), page 9.

[36] Beattie (2001), page 64.

[37] Green (2001), page 189.

Everything went into suspense. The normal plotted practices of life were no longer relevant.

> 'And when that story is multiplied so many times, you have not single farms but whole springtime landscapes devoid of lambs and calves, whole communities enveloped in smoke for days, a devastation of the little pattern of taking children to school, darts matches at the pub, Women's Institute meetings, trips to the shop or to friends which make up normal life – it was indeed a silent spring, and people did, as one councillor memorably said, seem to speak in whispers in the street.'[39]

And this worked, also, through photographs: there are terrible and moving sequences of photos that document the emptying of farms, the process of slaughter, the silence left behind[40]. A lost farm dog not knowing what to do. A plot, indeed, that had been lost: depression, the threat or the reality of meaninglessness, a lack of sense. This is part, then, of the new species of trouble.

Loss of Community

And with this, with the silences, came the erosion of community and communality also described by Erikson. Here is testimony from Devon:

> 'Divisions occurred within people and between different groups – "us and them". The "us" became narrower and smaller – only the immediate family. Thus psychological isolation exacerbated physical isolation.
>
> People withdrew from the nurturing of the community. The dangerous "not us" became wider and bigger: farmers, walkers; MAFF/DEFRA; those with no bio-security and those with excellent bio-security; those who left, those who remained; organic farmers, postmen, people with dogs; horse drivers and horse riders; children at school and not; open pubs and closed pubs; those compensated and those not; those who cheated and those who played straight. Suspicion, guilt, panic, fear and abandonment were all apparent. What is left is lack of confidence, depression, lack of ability to respond, and despair.'[41]

And again, this time from Cumbria:

> 'In the villages too life was changed. Nearly everyone avoided unnecessary journeys. Businesses, households and community life adjusted to the uncertainties and fears of spread of FMD. Many people could see their livelihood being threatened as businesses struggled with the fall in trade and visitors failed to appear. Village organisations, societies and clubs went into abeyance. Sports and arts events were cancelled. The concerns and uncertainties surrounding how FMD was spread caused almost everyone, not just farm families, to restrict their interaction with others and avoid group activities.'[42]

Some, indeed, articulated this as a failure in, an erosion of, communality:

> 'From the start of the outbreak there was a total collapse of the social structure within the rural area leading to desperate isolation for many people. There was a cessation of regular village activities: youth club, skittles, council meetings, church services, school fixtures were all cancelled, and children were kept off school. The closure of livestock markets – the regular meeting places for farmers and their suppliers - increased the feelings of isolation and depression felt throughout the community. There is little doubt that these factors contributed to a suicide in this parish. Seven

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[38] Mercer (2002), page 53.

[39] Lewes (2001), page 204.

[40] See, for instance, the photographs in the Devon inquiry ((Mercer: 2002)) of Ramscliffe Farm, taken by Chris Chapman. And also, in a strikingly similar image, Wrennall (2002).

[41] Mercer (2002), page 58.

[42] Cumbria Foot and Mouth Disease Inquiry (2002), page 77.

months on and most activities have resumed, but spontaneous visits to farms no longer happen'

All this, then, sounds like Erikson's new species of trouble. There is isolating and distancing, withdrawal, fear, confusion, loss of sense and erosion of community.

Silences and Accounts

But, but. Something else is happening too.

Alongside the silences and the isolations and the erosions there are also endless accounts. We have touched on some of them above. The BBC Radio Cumbria book we have been quoting from brings together fifty, but it is the tip of a huge iceberg. There are thousands and thousands more. By those who lost their stock. By those near the landfill sites. By vets. By slaughtermen. By neighbours. Church people. Sub-postmasters. Country-dwellers of all kinds. Many people wanted to make some sense of this cruel disruption. So there are diaries, tape recordings, letters, submissions to Radio Cumbria, to the various official investigations like the Lessons to Be Learned Inquiry. To the Devon County Council, the Cumbria Inquiry. There are drawings. Games invented by children. There are photos. There are books. And there is poetry. It is as if this deficit of meaning called out a rush of narrative to try to fill the vacuum.

This is not the place to attempt an overview of this tidal wave of stories, though there are certainly narrative themes to be found in them[43]. At the same time, the stories also tend to resist attempts to sum them up. Here is a part of a poem that became iconic in Cumbria, written by Peter Frost-Pennington, the temporary veterinary officer already quoted above. He penned it one morning in the middle of the epidemic before he went out to his next assignment with a condemned herd.

'I have to believe this mass sacrifice of animals I love
Is worth it.
Or is it the farmers who are the real sacrifice?
Like the animals, they take it meekly and obediently
Often thanking me for doing it.
After I had killed all 356 cattle in one family's dairy herd
They sent flowers to my wife.
These are the people who are giving up all, in the hope it will save others.

But don't get me wrong
I have now seen plenty of this plague
And it is no common cold.
The animals suffer horribly, as the skin of their tongues peels off
And their feet fall apart.
We must try to kill them quick and clean,
As soon as it appears in herd or flock.'[44]

Our contention is that though Frost-Pennington's tropes can indeed be analysed, to do so is to miss out on something important. This is because in this proliferating version of the new species of trouble there is not a lack of meaning or language, but rather because there is also, or instead, meaning and narrative in excess[45] – in fact both within and beyond language,

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[43] These themes are carefully explored in Bailey et al. (2004) who argue that recurrent narratives include distinctions between cleanliness and dirt, metaphors of war, totems of death, together with stories about killing on the farm (slaughtering is rarely done on farms). On war metaphors, and their role in the creation of meaning and the way in which they offer the cultural possibility of control, see Nerlich et al. (2002). On trauma and the conventional character of 'ineloquence' within legal testimony see Berlant (2001).

[44] Frost-Pennington (2001a), pages 7-8.

[45] In the literatures influenced by post-structuralism, emptiness is understood, and surely correctly, as excessive, proliferative, and generative. See, in very different modes, Rotman (1987) and Berlant (2001). More generally, on the relation between (the limitations of) discourse and the generative character of extra-discursive figure, see Lyotard (1984).

for instance into art, performance and photography[46]. In which case this version of the new species of trouble is not simply about losing sense when the narratives of life or community disappear. Rather, or in addition, it is about meanings that exceed the available narrative technologies. Or, perhaps, and in addition, it is about narratives that do not form a single whole but craft multiple and non-coherent modes of sense. Perhaps, then, this is the distinctive character of this version of the new species of trouble. That, in one way or another, it defies summary.[47]

Creativities

And yet more needs to be said. Here are some straws in the wind, three brief observations that follow from this. They have to do with creativity, ambivalence, and grand narrative.

First, as we have tried to show, alongside the fragmentation and loss of meaning, there is also an extra-ordinary creativity at work. This is literary, pictorial, social, political, spiritual, material and economic. In his normal job Frost-Pennington works in tourism at Muncaster Castle in lower Eskdale. Perhaps he writes poetry in his spare time, but he would not have written this particular poem unless he'd been caught up in the foot and mouth epidemic. Just as this anonymous farmer, quoted by Pamela Brough, an Ulverston-based writer, would not have told her (we quote):

> 'We have to use this as a way to improve on things – from farm practice to markets, to supermarkets, to our relationship with customers who buy what we produce. We're listening; talk to us, tell us what you want us to do and we'll do it.'[48]

So this is very different, not poetic but pragmatic. But it is creative, none the less. And less anonymously, Les Armstrong, Chair of the NFU national Livestock Committee, with his own farm in the Eden Valley would not have written that:

> 'there will be change on our farm …. We are making alterations now to accommodate a larger dairy herd and the emphasis will be on quality of life rather than quantity of production.'[49]

So there were small changes and big changes, creative changes and social changes. And we're not going to begin to try to list the endless kindnesses and the forms of care extended across the rural networks of Cumbria and Devon – and beyond – that were created, that created themselves in the months of the epidemic. However, Andrew Humphries gives us the flavour:

> 'networks appeared almost as a natural consequence of need, vital to bring some confidence, purpose and practicality in our responses. Yet for the farming community, marginalised, isolated and confused, the very act of listening and trying to understand has seemed so important.'[50]

Our aim is not to talk down the suffering and the hurts. The anger, the losses, these were, these are, real and dreadful. It is rather to say that these hurts were accompanied by creativities, perhaps in some kind of balance – or perhaps not.

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[46] See, for instance, the materials gathered by Littoral at their web-site, 'A Crisis too Far' at http://www.footandmouthdoc.com/.

[47] We are also tempted to argue that the new species of trouble is about the collapse together of different circuits of meaning, narrative forms, or ways of life, that are held apart under normal circumstances. This, however, takes us beyond the materials we are discussing here.

[48] Brough (2001), page 195.

[49] Armstrong (2001), page 199.

[50] Humphries (2001), page 192.

Ambivalences

And this is the second point. One of us has written about ambivalence in the very different context of health care[51]. But foot and mouth was also about ambivalence. Meaninglessness, silence, loss of livelihood and narrative coherence, were complemented, then, by a fragmentary and extraordinary creativity. They were complemented by a process of groping towards new narratives, new meanings, new and renewed ways of living. One person, a slaughter man distressed by his part in the mass killing, said 'It's part of a cycle'[52]. We don't want to be polyanna-ish about this. We do not want to say that things like foot and mouth work out alright in the end, if only because, as one of us has argued in the context of health, there is no end, there is no summing up, there is no bottom line[53]. But perhaps the movement and complexity implied in the metaphor of the cycle also catches something important: a movement between moments that are good and moments that are bad, between different narrative forms; the capacity to make and move with them in order to carry on with life.

Grand Narratives

And third, we want to touch on the related questions of grand narrative and Aristotelian plot. Because grand narrative, no doubt in an Aristotelian form, sits uneasily with the creative effusion of accounts of pain, anger and redemption generated in this particular version of the new species of trouble. Perhaps it is not too much of an exaggeration to say that the two do not exist in the same universe. Grand narrative smoothes things off, makes them follow a plot with a beginning, a middle, and an end. But this is not what the effusion of accounts and meanings is about, even though they show narrative themes, and have individual beginnings, middles and ends.

That there is a yawning gap between the big stories and the upwelling of local forms of testimony is evident on all sides. For instance, there was, there is, endless anger and frustration in Cumbria and Devon about the big policies invented in London by MAFF (the Ministry of Agriculture, Fisheries and Food) to try to deal with the scourge. There was an endless sense that outsiders didn't really get it, that those who had not lived through it could not know what it was really like, and further, that they could not understand local circumstances[54]. The sense was widespread that any attempt to sum it up, to catch it in a policy or an overview, was necessarily doomed to failure.

But the sense of this gap between the complexities on the ground and the story-like Aristotelian accounts in the grand narratives lurks also in the grand narratives themselves. The report compiled by Ian Mercer for the Devon County Council deals with this head-on:

> 'However, the whole area of human distress, and the efforts of those who strove to ameliorate it at the time and on the spot, is a continuing concern and about which reporting is a problem. The time and energy applied by priests, teachers and volunteers from organisations such as the Farm Crisis Network, to listening and counselling cannot be too highly praised. We wish to register gratitude for all their work on behalf of all Devonians'.

Then it continues so:

> 'Those who have written, those who attended and those who followed proceedings via the media and the Internet are all aware of the emotional atmosphere which surrounded the exposure of personal tragedy. There are also undoubtedly those who have not yet found it possible to express their feelings in writing or in person. What

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[51] See Singleton (1996; 1998).

[52] Brough (2001), 195.

[53] See Singleton (2004; 2005).

[54] This was articulated in many ways. One of these concerned the culling policy which was widely understood as a mechanical application of a model based on abstract distances invented by scientists who had no sense of the specificities of local topography. For an academic account of this spatial disjunction see Bickerstaff and Simmons (2004).

> follows is necessarily for the present purpose as objective and pragmatic as we can make it, but none who have suffered should be in any doubt that their experience and their present plight is not diminished in any way by that'.[55]

There is much that is being said here, and all of it is important. It is about the loss of words. It is about the disparity between local and emotional words and the reporting of those words. And then, very interestingly, it is about the uneasy and at the same time sensitive allusion to the division between the 'objective and the pragmatic' on the one hand, and the experience, the plight, and the feelings of individuals on the other. It is about the division between certifiable knowledge that resides in the public domain, and equally real construction of the private – and the fact of their mismatch. (A product, one might add, of a deeply entrenched modern division of labour extensively explored by many including some feminist writers).

The sense that the grand narratives don't catch it runs through some of the other big reports. The Royal Society report on the science of foot and mouth[56] plaintively notes from time to time that it is necessary for public attitudes to be taken into account:

> 'The second issue has been the public reaction to the foot-and-mouth outbreak of 2001. It has eroded trust in, and increased suspicion of, Government actions while raising questions in the public mind about strategies for disease control that only cull animals. The public wishes to see alternative strategies examined….'[57]

Apparently this was much less important in 1967, the time of the last major outbreak of foot and mouth in the UK[58]. More interestingly the Lessons to be Learned report by Iain Anderson[59] marginalises personal testimony: literally so, since all sorts of short quotes appear in the margins. So what are they doing there?

The answer is, we don't know. Perhaps they work to strengthen the grand narrative of the report by legitimating it in an expression of sensitivity to suffering. Perhaps, then, their presence is a way of marginalising personal testimony figuratively as well as literally. Or perhaps, alternatively, they are a typographical recognition of the report's limitations. That it speaks, but in its managerial and policy-related smoothness, it also knows that it does not speak the truths and the silences, the realities, that are generated in this version of the new species of trouble. Because, precisely, they cannot be summed up.

Conclusion

In the face of disaster we are confronted with the question: how does a world hang together for its participants? One possible empirical answer is that it is integrated: that it can be summarised in families of narratives that fit together, and that it is when these fail that meaninglessness results: that epistemological and ontological uncertainty generate the new species of trouble identified by Erikson. An alternative that we have suggested though not explored here, is that people's stories and plots don't entirely fit together, but that there is no crisis in meaning, no embodied crisis, so long as these are held apart or intersect only in carefully ordered ways[60].

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[55] See Mercer (2002), page 2.

[56] Royal Society (2002).

[57] Royal Society (2002), page 1.

[58] 'Our Inquiry has attempted to reflect the changed nature of public concerns in the new century. Issues such as human health, food safety, animal welfare, and a suspicion about 'authority' all figure more strongly than in previous generations', Royal Society (2002), page 5.

[59] Foot and Mouth Disease 2001: Lessons to be Learned Inquiry (2002).

[60] This is an implication of the work of Annemarie Mol on health care practices, though her account explores not only epistemological but also ontological multiplicity. See Mol (2002).

The issue is largely empirical and moves us beyond our present argument. In any case, disaster visited on an Appalachian community is no doubt different in form to the species of trouble that visited Devon and Cumbria, or other parts of the UK, in 2001. It seems likely, for instance, that the communities in question were less isolated for the latter. But whatever the context, it is our argument that the foot and mouth catastrophe can in part be understood as a kind of narrative implosion where there was not simply meaninglessness, but also too much meaning, an excess. The hurt cannot be well described. But alongside this, the creativity of this implosion is also moving and exciting. Arguably it also generated new community strengths. Perhaps it was part of a process of change, both tragic and innovative. Creativities as well as traumas grew out of this further species of trouble.

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