

Fukushima Fixation – The Media Focus on Radiation Risk in Tsunami-Stricken Japan

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Twenty five years on from Chernobyl, the tragic events in Japan of March 2011 seem to reaffirm the ‘risk society’ perspective which the 1986 nuclear accident in the former Soviet Union did so much to popularise. It was amidst widespread predictions of mass harm – projected both across Europe and into the future – that German sociologist Ulrich Beck’s book of the same name found such a receptive audience.¹ Beck wrote of a new era defined by the greater risk posed by ‘manufactured’, technological risk than natural, ‘external’ ones. The way in which the possible, nuclear threat from the damaged Fukushima nuclear plant looms larger than the devastation and the thousands actually killed by the ‘natural’ earthquake and tsunami reminds us of Beck’s distinction.

The problem is more acute in Beck’s reading, as we still mistakenly look towards science when it is, in fact, more part of the problem than the solution. Having imposed this dangerous technology on us in the first place, science – in league with government – plays down the risk, with bland assurance of a lack of any evidence of harm. Again, recent Japanese experience resonates, where official reassurance is assumed to be, at best, irrelevant, as the Western media continue their search for nuclear-related harm. As it evolved, the sociological approach merged with and reinforced a precautionary approach to technology that tends to assume and project risk independently of evidence, suggesting that we cannot afford to wait for a cumbersome science to prove the harms that we ‘know’ lie in wait. Reflecting the technologically cata-

strophist inclinations of the sociological perspective, Gunther Oetinger of the European Commission has talked of an ‘apocalypse’.² The French government, among others, told its nationals to evacuate Tokyo, and German Chancellor Angela Merkel publicly put Germany’s nuclear programme on hold. Meanwhile, the focus has turned resolutely away from examining the scientific case, and certainly not challenging any misperception of risk. Precautionary measures belie the fact that not a single person has yet died as a consequence of the damaged reactor, or even been harmed – something which cannot be simply assumed as a consequence of increased exposure (remember that high doses of radiation help cure, not only cause cancer).

Events in Japan actually better affirm some more conventional themes and concepts of risk analysis than Beck’s, most fundamentally the need to distinguish the perception of risk from the actual hazard. Such perceptions can be more heightened in relation to risks that, for one reason or another, elicit greater fear than others that are, objectively, more hazardous. Modern risk analysis originated in trying to understand the gap that opened up from the 1960s between expert and lay risk assessment.³ One important focus was differing perceptions of the dangers of nuclear power, stimulated by the Three Mile Island and Windscale incidents. Writers drew attention to particular psychological ‘dreads’ that led us to selectively prioritise risk irrespective of their real threat, for example. The very terms ‘nuclear’ and ‘cancer’, particularly in combination, are, alone, potent triggers of risk anxiety irrespective of actual impacts. More recently, the ‘social amplification of risk’ has emerged as a research focus, and the media’s coverage of events in Japan is a clear cut example of this sometimes over worked and rather empty notion.⁴

The actual human tragedy in Japan became something of a side show to television-like drama of Fukushima where tension was maintained by speculation about how well the damaged reactors are being contained, or not. As has become relatively common in the curious world of the ‘risk society’ real, even massive harms have been displaced in our attentions by

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1 Ulrich Beck, *The Risk Society: Towards a New Modernity* (London: Sage 1992).

2 Cited in Mike Hanlon, “Why what’s happened in Japan should be an endorsement of nuclear power”, *Daily Mail*, 19 March 2011, available on the Internet at <<http://www.dailymail.co.uk/debate/article-1367289/Japan-earthquake-tsunami-Are-right-worry-nuclear-angle.html#ixzz1J1BigJCh>>.

3 See, for example, Paul Slovic (1987), “Perception of Risk”, *236 Science* (1987), pp. 280–285.

4 Nick Pidgeon, Roger Kasperson and Paul Slovic, *The Social Amplification of Risk*, (Cambridge: Cambridge University Press 2003).

speculative, actually implausible risks. Certainly in the UK, with which I'm familiar, the nightly television news in middle and late March spoke ominously of a continued threat, constructing a story of the 'battle' to contain the damaged reactor. The non-commercial and famously objective BBC was no exception to this pattern. A typical report on March 15th, for example, told of the 'fear' amongst Japanese people. They found a man to say that the nuclear threat was more frightening than the tsunami, complaining that 'nobody tells us anything', in an echo of the mistrust at the heart of the 'risk society'. An unidentified number of people were leaving Tokyo, or 'forced to flee an invisible threat', as the report had it, whilst others had 'no choice but to stay'. The city was portrayed as a kind of ghost town of empty shops and taxis without business. In this context the Prime Minister's call for calm – ostensibly the subject of the report – appeared irrelevant, even dishonest.⁵ Typically, at no point were viewers reminded that there have, thankfully, been no radiation casualties and that, in this sense, there was no story to be communicated at all. The BBC also broadcast wind-direction forecasts of Japan, as if there were an established hazard that only required the right weather conditions to become a generalised risk. Alongside such reports have been elements of often comical panic, such as in the virally circulated argument between the American newsreader insistent that her country is now under nuclear threat from Japan and the weatherman who tries to patiently challenge her ignorance.⁶

Analysing coverage of events in Japan by the international media confirms a widespread focus upon possible radiation risks that bears no self evident relation to 'news' of actual harm or casualties. The Lexis Nexis database compiles reports from many international sources and can be searched with key words in various forms. Whilst no particular searches provide absolutely reliable means of comparison – particularly with any precision – they do give some sense of the nuclear risk lens through which some national media viewed events.⁷ Using various search terms,

all confirm a large volume of speculative coverage of the reactor, often comparable to that for the devastation wreaked by the earthquake and tsunami. The figures below show the number of articles that include 'major mentions' of 'Japan' combined firstly with 'tsunami', and then with 'Fukushima'.⁸

French publications:	'Japan' and 'tsunami':	904
	'Japan' and 'Fukushima':	410
Italian language news:	'Japan' and 'tsunami':	77
	'Japan' and 'Fukushima':	28
UK publications:	'Japan' and 'tsunami':	'more than 3000'
	'Japan' and 'Fukushima':	1939
German publications:	'Japan' and 'tsunami':	'more than 3000'
	'Japan' and 'Fukushima':	'more than 3000'
Spanish language news:	'Japan' and 'tsunami':	355
	'Japan' and 'Fukushima':	269
Dutch language news:	'Japan' and 'tsunami':	1935
	'Japan' and 'Fukushima':	1321
Danish language news:	'Japan' and 'tsunami':	28
	'Japan' and 'Fukushima':	28
Irish publications:	'Japan' and 'tsunami':	891
	'Japan' and 'Fukushima':	287
US News:	'Japan' and 'tsunami':	'more than 3000'
	'Japan' and 'Fukushima':	2400

On this evidence it appears that the threat of radiation was a relatively equivalent story to the actual devastation caused by the tsunami. To an extent Fukushima became *the* story of the Japanese tragedy, perhaps its final tragic culmination. This reflects how the modern media narrative appears to have difficulty functioning without institutional blame, and the official response must be inadequate, in this reading.⁹ There is no more compelling way to ex-

5 See Rupert Wingfield-Hayes, "Japan authorities attempt to calm fears over nuclear risk", *BBC Online*, available on the Internet at <<http://www.bbc.co.uk/news/world-asia-pacific-12749281>>.

6 See <<http://www.youtube.com/watch?v=ncey9ShigUs>>.

7 Experimenting with various search terms, using 'Fukushima' turned out to be the best means of identifying articles that prominently concerned events there, whereas using more abstract terms of 'radiation' and 'risk' tended to massively skew figures towards UK, US and Irish sources.

8 Note that Lexis Nexis can only state 'more than 3000' once above that figure, but that similar searches indicate that the figures are not substantially more than this number.

9 A different case – of the volcanic ash cloud in 2010 – illustrates this point. The ash cloud was not amplified by the media given an 'act of God' and no clear institutional target. See Adam Burgess, "Representing emergency risks: Media, Risk and 'Acts of God' in the Volcanic Ash Cloud", in Alberto Aleman (ed.), *The Challenge of Emergency Regulation – Beyond the European Volcanic Ash Crisis* (London: Edward Elgar, 2011 forthcoming).

press this than through finding ‘innocent citizens’ exposed to deadly risk, and in reports such as the one cited above the media sought out those who would echo their anxieties and agenda. Amidst the devastation and uncertainty created by the tsunami there will inevitably be those susceptible and suggestible to loaded questions about ‘do you think the government is doing enough to protect you from radiation?’ Meanwhile, the Japanese authorities never seemed to be ‘doing enough’ to eliminate the risk constructed by the media narrative. In fact, whilst there is no good data yet available, there is no clear evidence to suggest widespread radiation panic in Japan. My own Japanese friends comment on how it is only through Western eyes that these earthquake, tsunami and nuclear hazards appear uniquely threatening. The Japanese themselves are far more familiar with these hazards – even the tsunami was larger in scale than in the past, but not unique. It is because of previous experience that this part of Japan has a tsunami warning system, which only failed because of the unexpected speed of the massive wave.

A consequence of the obsessive focus on only risk from radiation is the neglect of any understanding of its actual nature and limits, and even why it is that there is a problem in the first place. In fact, the Fukushima reactors are old technology, built in the pre-computer age to a 1960s design that uses water to cool their cores. This made them vulnerable to the quake and tsunami – unlike modern reactors which are self cooling and can’t therefore go into meltdown. Nonetheless even these old reactors have withstood an unprecedented challenge of both the earthquake and the tsunami, and, in different circumstances would have stood as a powerful worst case scenario safety case for nuclear energy. In any case, the threat of radiation from such reactors is not unbounded, as the ‘risk society’ suggested, but actually surprisingly modest and certainly restricted. The bottom line remains that even if all the reactors were to blow up there is no clear case for concern so long as you remain at least 20 miles away. In this context it is important to remind ourselves of how limited the

impact even of the Chernobyl accident was, particularly compared to the apocalyptic predictions about an almost indefinite and incalculable Europe-wide contamination that followed the incident, and provided such a fertile environment for the ‘risk society’. The scientific consensus is that the only direct casualties were the 31 people that were killed when the reactor blew – 28 from radiation exposure and three scalded to death by escaping steam. In addition, 134 people received high radiation doses and several dozen of these have subsequently died, although several of unrelated causes. A few hundred people, perhaps up to 4000, may die prematurely in years to come, mostly from untreated thyroid cancers. These figures come from the Chernobyl Forum, the umbrella organization for scientific research on the impact of the accident set up by the International Atomic Energy Agency in 2003.¹⁰

Whilst the focus on radiation risks is set to threaten nuclear programmes in countries like Germany and the UK, they actually represent a compelling case for their expansion, as even these old fashioned reactors have withstood the worse that nature could throw at them. This is at a time when recognition of the need for an urgent shift away from fossil fuels because of climate change also compels the building of a public case for nuclear expansion. This is the starting point for Wade Allison’s excellent, *Radiation and Reason*, a book that refreshingly tries to engage a general audience in a better understanding of this long studied but still widely misunderstood phenomenon.¹¹ In an interesting development, the UK’s most prominent environmental journalist, George Monbiot, has undergone a Damascene conversion, based upon recognition of the need to expand energy programmes that do not add greenhouse gases to the atmosphere. Significantly, as Monbiot has turned to the actual evidence, he describes his shock at what he describes as the ‘lies’ of the anti-nuclear camp.¹² All the sources identified to him by the principal voice against nuclear power as substantiating their case turned out to lack any scientific credibility. His changed position can be traced back to a fundamental contradiction within contemporary environmental argument around climate change and nuclear power. For years, Monbiot and others have also contested climate scepticism by upholding the authority of the International Panel on Climate Change, the equivalent of the Chernobyl Forum in climate science. It is awkwardly inconsistent to dismiss the Chernobyl Forum (and their figures confirming relatively little

10 See <http://www-ns.iaea.org/meetings/rw-summaries/chernobyl_forum.asp>.

11 Wade Allison, *Radiation and Reason* (York: York Publishing Services 2009).

12 George Monbiot, “The unpalatable truth is that the anti-nuclear lobby has misled us all”, *The Guardian*, 5 April 2011, available on the Internet at <<http://www.guardian.co.uk/commentisfree/2011/apr/05/anti-nuclear-lobby-misled-world?INTCMP=SRCH>>.

harm) as illegitimate, whilst continuing to dismiss those who challenge the integrity of the IPCC.

The 'risk society' never added up. Beck was not even basically acquainted with the science of radiation, basing his case merely on common assumption about its qualities of invisibility and assumed almost limitless power. He was always confused about whether the problem was one of new 'manufactured' hazards that were objectively more threatening, or these were largely heightened perceptions stimulated by wider forces of individualization, weakening trust and fractured authority (the useful part of the thesis). Meanwhile, the extent of the media's nuclear fixation is truly shocking – not only in the context of the real suffering and devastation in Japan, but it's disturbing implications for the future of energy production faced with climate change. This is not to suggest that the anti-scientific media consensus was complete, as some science journalists did try to challenge it. For example, *The Times'* correspondent drew attention to the discrepancy in coverage between an improbable but exotic, and mundane but greater hazard. There was a massive methane explosion in a coal mine in Pakistan, killing over 40 workers, around the same time as the international media focus on Fukushima. These were part of the thousands of lives lost annually (6000 in China alone) digging up fossil fuels, as we remain hesitant about pushing ahead with more nuclear reactors.¹³ The *Daily Mail* correspondent wrote some impassioned articles contesting the skewed coverage. Even some official figures spoke

out; Britain's Chief Scientist, John Beddington, did well to put the risk into proportion, but didn't manage to get his message heard more widely.¹⁴

But these remain isolated voices in an environment where government has become defensive about being seen to not to do everything in their power to eliminate risk, and the notion of making new risks through introducing reactors even worse. Behind the scenes there is widespread recognition of the fundamental necessity for greater use of nuclear power in an age defined by damaging global warming. The political will to push this agenda forward has even developed in countries like the UK and Germany. What appears to be lacking is the confidence to do so, as a curious assumption that the public is implacably opposed goes unchallenged. Whilst 8 new reactors are now planned to be built by 2025 in the UK uncertainty still surrounds their future as no case has been made, let alone won a case for public support. Instead, government has tended to tip-toe around the issue as if it was some kind of dirty secret and in the process making it really seem like one. Building new reactors requires winning arguments about the nature of radiation and of relative risks compared to the alternatives. The impact of the media hyping of Fukushima makes presenting the compelling case for nuclear expansion more urgent than ever.

13 Mark Henderson, "Science matters", *The Times* Eureka magazine, 7 April 2011.

14 See his comments in Hanlon, above citation.