Fake News, Paradigm of Fear & Sustainability:

Research Report on Climate Fear(s)

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[Sen. Ed. Note: Bell prefers the title: "Fake News, Fear, Sustainability and the Paradigm of Fear: The Weaponization of Fear as a Lever for the Good?"]

Abstract

News manipulation is now a much-discussed reality of 21st century media ethics. Daniel Khaneman has identified that people have a tendency to respond to complex issues in a problematic manner – often making use of instincts (System 1 or S1) in knee jerk responses when a more rational (Systems 2 or S2) approach might be more appropriate. Simply put, human beings have a flawed process for problem structuring. In research carried out between 2015-16 with people engaged in and concerned with climate change, a series of interviews were undertaken concerning public attitudes to *fear* as a major force in the climate change debate. The results have paved the way to describing a process – the "paradigm of fear," whereby fear can be weaponised in order to promote knee jerk responses to complex issues. The results of the research were published in a book (*Formations of Terror*) and a comic (*Project Fear*)[1] but lasting questions remain to be addressed: Is fear weaponised by lobbyists in order to promote public response? If fear is weaponised to prompt populations to change, is such action ethical and responsible? Do climate change activists have a responsibility to orientate arguments to the rational and reflective rather than the instinctive and automatic? Describing the formations of terror as a device for fear management, this paper explores the ways in which fear can and is used by all sides in the climate change debate and raises questions about the ethics of social manipulation for even the best of causes.

Keywords: Weaponization of fear, Project, Community, Climate Change, Paradigm of Fear

(Much of this paper is drawn from and builds upon an earlier book. The fuller version of this paper is to be found in Bell, S. 2017. *Formations of Terror*. Newcastle Upon Tyne: Cambridge Scholars)

[1] For more info: https://fearlessnessmovement.ning.com/blog/operation-project-fear-the-open-university-uk

1. Introduction

This paper is the result of a thought experiment which resulted in a book. The core concern was fear and the its manipulation. Fearful headlines abound. Typing into Google: "examples of newspaper headlines which mention climate change" produced quite a few. Here is a very small sample:

"Earth hotter now and getting hotter"

"There is no planet B"

"Arctic ocean getting warmer; seals vanish and icebergs melt"

"It's Scary, really Scary!"

"We're Screwed"

Fear has always been with us as a species. It has been used in all kinds of ways. The concept fear as we understand it today has its origins in Greek mythology. *Phobetor* or Fear, the son of *Hypnos* (sleep) and brother of *Morpheus* (shape) and *Phantasos* (phantasy). Allegedly, these gods combined in sleep and dream to provide human beings with insights and also with terrors. This is an important point. Fear is often a function of an unconscious response.

Notions of fear linked to shifting shape and phantasy remain as sustaining attributes of fear to this day. To start looking at fear, as we experience it, is to look at the ways in which fear is expressed at this time and in this place, in the case explored in this paper, the European culture of the early 21st century. This embeds our experience of fear in a cultural context, a cultural experience of fear.

Barry Glassner, an American sociologist and former journalist, looked at the cultural phenomena of fear (Glassner, 1999/2010) in his extensively researched book *The Culture of Fear*. This book provides evidence of fear and (in the 10th anniversary edition) claims to have been responsible for popularly placing the term *culture of fear* in the national lexicon of the USA, (the subtitle of the book rather gives this away, *Why Americans Are Afraid of the Wrong Things*.) Glassner looks at fear in all kinds of places and conditions from transport to crime, from the young to illness, from ethnicity to drug use, from terrorism to the media. And it is the media where he finds the core of the fear issue; that is, in the biased selection, promotion and reporting of that which is to be feared. Glassner (1999/2010) reports that a great deal of the fear that is reported is bogus:

> "We waste tens of billions of dollars and person-hours every year on largely mythical hazards like road rage, on prison cells occupied by people who pose little or no danger to others, on programs designed to protect young people from dangers that few of them ever face, on compensation for victims of metaphorical illnesses, and on technology to make airline travel - which is already safer than other means of transportation - safer still." (p. 341)

In this argument, fear is promoted and extended by interest groups in order to achieve highly questionable specific ends. "The success of a scare depends not only on how well it is expressed

but also, as I have tried to suggest, on how well it expresses deeper cultural anxieties" (ibid., p. 348.)

Glassner and others (e.g., Furedi, Gardner, and Bourke) identify how people are worked on by *fear* in a manner corresponding to what Khaneman (2011) classifies as two distinct systems of responses of which the first is Systems 1 (or S1) – an instinctive response. Fear literally gets into us, creates knee jerk responses and triggers a series of outcomes sometimes in a domino effect. The fact that fear can be induced by headlines and prominent contributions to social media means that it is possible to conclude that fear could to some extent be applied deliberately and strategically. His second system is a more thoughtful and rational, System 2 (or S2); these responses might provide respite from an S1 fear response but this is yet to be explored in a definitive and conclusive manner. How does a rational response emerge if the subject is already fearful?

In my research I have explored the prevalence of fear in climate change discourse and, with a limited sample, asked some questions about contemporary responses to fear of climate change. At the outset of my research my questions were naively formed as follows:

1. Specifically regarding climate and environmental issues, are you aware of fear among those you meet in your work?

2. If so, what is the main cause of fear in the current environmental debate?

3. Do you think policy makers and populations more generally should be fearful?

4. Is there a problem with the way in which news in the environmental debate is broadcast to the general public?

5. Can a response of fear be useful with regard to complex problems?

With *Project Fear* now an openly discoursed cultural artefact, the deliberative application of fear in public discourse leads to further questions. The responses to the five questions set out above may provide a basis for a more pointed analysis and an engagement with further strategic questions:

- Is fear weaponised by lobbyists in order to promote public response?
- If fear is weaponised to prompt populations to change, is such action ethical and responsible?
- Do climate change activists have a responsibility to orientate arguments to the rational and reflective rather than the instinctive and automatic?

2. Methods

This research arose from a thought experiment, in a sense it is an accidental outcome of a serendipitous sample which emerged from conversations with 'climate issues aware' people who have come to talk to me or (more generally) been contacted by me because I came across their names, of which sometimes they were suggested to me by others or because I happened to know them from my work in the field and thought that they might be able to provide me with insights. In some cases, they are people I 'met upon the way' as my questions advanced and my research pursued.

Framing my conversations and engagements in a broadly identified Action Research format (there are many references but probably the most inspiring remains: Lewin, 1946), and taking due reference from the formative work of Robert Chambers in Participatory Action Research (Chambers, 2002), this serendipitous 'transect walk' through the population began on the 11th March 2015 and ended on the 8th December 2015. I communicated with people in the UK, Australia, USA and several countries in Europe including Sweden and Portugal. Many of those whom I spoke to were members of the International Sustainable Development Research Society, of which I was a member and Board Member.

I must reiterate that this is not a scientifically assembled representative sample in any way. In all cases the voices are those of people who are interested in climate change as an issue and have thoughts on the matter. I wanted my 'sample' to be informed and interested, I also wanted them to be engaging and interesting. In every case the people represented here have answered most if not all the five questions. In around 25% of the cases I recorded the responses to the questions as an interview, the remaining 75% responded by email so I only have their written word. There are 43 responses in all. The breakdown of the respondents is shown in the Pie chart set out in Figure 1.

The breakdown of the respondents to my questions by interview or questionnaire indicates that well over half of those I contacted were academics interested in or directly working with the issue of climate change.

I was fortunate to meet and talk to many fascinating stakeholders in the climate change/climate fear debate. Those who responded to my request range from climate and environmental scientists, politicians, policy advisors, technologists, activists to those involved with the care of people either in terms of their psychology or religious needs.

The responses to my questions were qualitatively assessed but the 'Big' question was:

Question 1: "Specifically regarding climate and environmental issues, are you aware of fear among those you meet in your work?" Figure 2 shows the response to this question.

"My questions may be simplistic, even naïve. But, my key concern was to gain responses to provocative but brief questions."

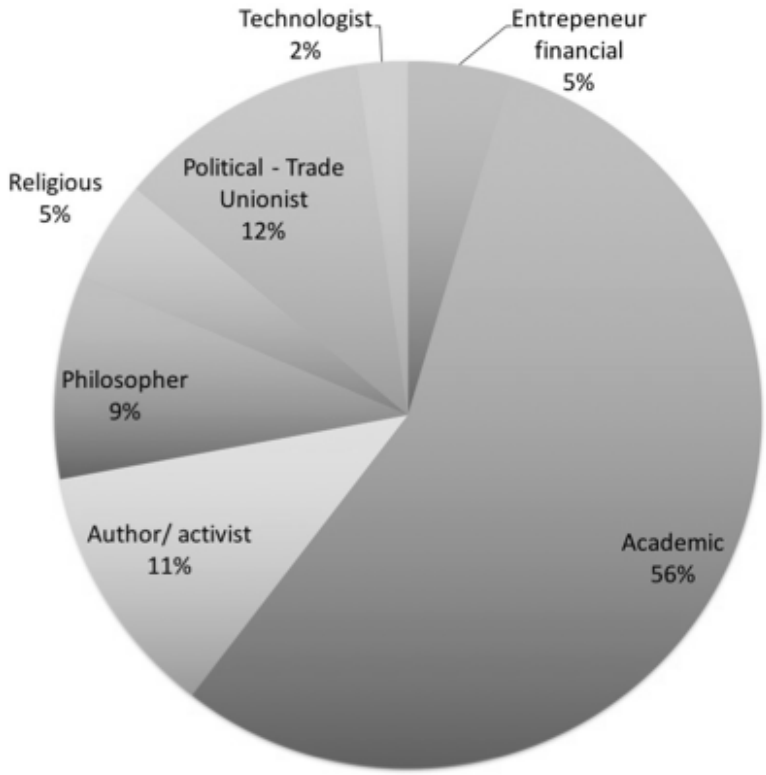

***Figure 1**. Occupational breakdown of the respondents to my questions'*

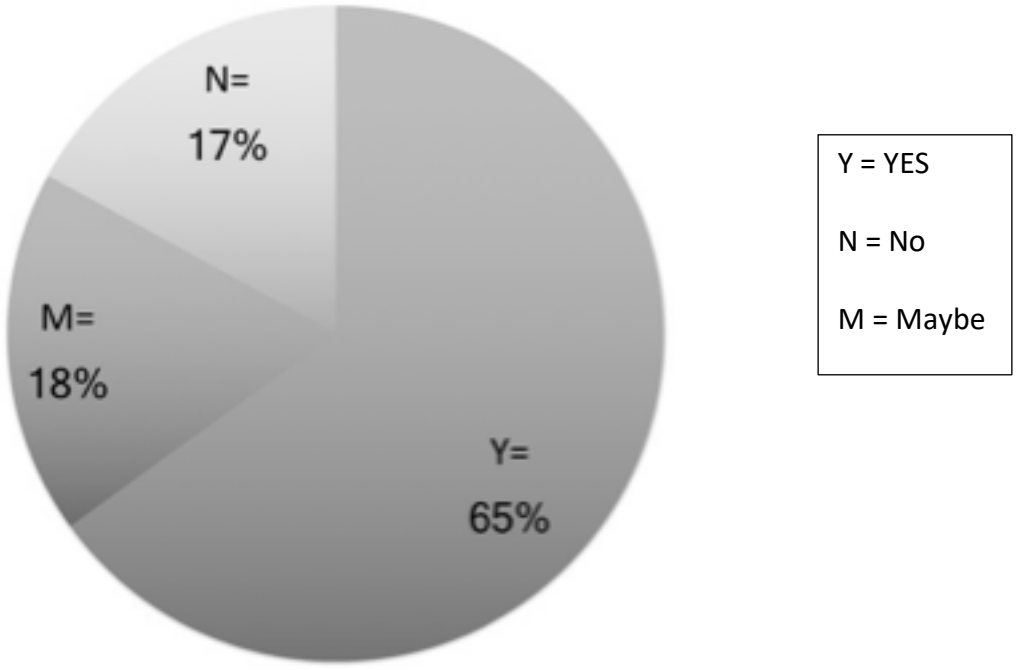

***Figure 2**. Response to Question 1: 'Are you aware of fear?'*

83% of my sample were either sure or at least had a 50/50 view that fear relating to climate change is experienced in the people with whom they work and/or interact.

The summative, qualitative observations for each question are set out in the next section.

3. Results and Discussion

I set out each question here and my summative assessment of the responses gathered. The full responses to each question are set out in the book noted at the beginning of this paper.

Question 1. Specifically regarding climate and environmental issues, are you aware of fear among those you meet in your work?

"Fear could be a lever." – Anon. respondent

As already noted above, overwhelmingly the response was 'yes' but two observations can be made regarding responses to this question. Early on in my interviewing I received a gentle ticking off from a notable expert in climate change. He chided me for the simplicity of my questions (allowing major leeway for variable interpretation on the part of those answering) and the commensurate danger of reducing the messiness and complexity of climate change to what might emerge as glib observations. Fair enough. My questions may be simplistic, even naïve. But, my key concern was to gain responses to provocative but brief questions. I did not want to muddy the water too much at the outset with complexity, to assume too much prior knowledge of my respondents or, alternatively assume climate change ignorance and therefore provide a copious back story. Brevity at the risk of simplicity seemed like my best strategy. The second point I would like to make links to the observation that fear can lead to states of denial and/or being inured to the effects of fear. For example, an academic response to subjective questions about fear can be one that allows the object of terror to be set to one side, projected onto a neutral and intellectual space and correspondingly seen as effectively belonging to someone else. But I wanted responses to questions about fear to be personally and even subjectively interpreted. In asking these questions I wanted, in so far as it was possible to elicit this personal response.

Taking these points into account, a respondent to question one noted that fear could be used in order to encourage an outcome. Fear could be a lever. This point seems to be a very prevalent concept in Furedi's 2006a and 2006b) as well as other authors going back to Davis's (1999) *Ecology of Fear* (1999). Fear used, as a lever, is a means to induce an outcome. Davis's notion of an ecology links in well with the need to understand the territory of fear which came out of the ideas of Marshall (2014) and this in turn links to ideas of a *continuum of fear*.

In systemic terms, if there is a territory of fear then there is a boundary. Also, territory implies different viewpoints or worldviews about what the territory is. In one sense we are all constantly imposing our own personal views of what a territory is onto the social and physical landscape. A

boundary is rarely as fixed as a coastline or a cliff edge. More generally the boundary is ascribed by an individual or social agency (for e.g., an intellectual might suggest the boundary or limits of an idea whereas governments would agree the boundary or limits of a nation). Territory often means dispute with regard to the nature and place of boundary.

Another continuum writ large was contained in another response. In this case the respondent's concerns related to the fear consequences of global challenges to individual existence and threats to it that emerge in the overwhelming forces of the social reactions to the fear and experience of climate change. At the current time, and since early 2016, in the midst of a refugee crisis in Europe (somewhat forgotten in some circles due to the rising 'noise' around migrant concerns on the US border), the flood of refugees might prove to be a major social phenomenon of these times as a variety of crises begin to affect much of the industrialised world from Australia to the USA. First world fear or complacency and the resulting understandable knee-jerk-mind-sets of "go away" or: "not my problem" underlined by another of my respondents seems to me to be potentially potent elements for any kind of *counter-fear project* to be aware of. Finally, and deep down despite all this labelling and grounding of fear consequence, there remains the underlying namelessness of much that we fear and maybe a sense that this also relates to our personal responsibility to ourselves and to our world.

Question 2. If so, what is the main cause of fear in the current environmental debate?

With Question 2, as with all the responses to all five questions, there were a multiplicity of perspectives and assumptions operating in the responses. Here I try to draw out some of the major threads.

Some of those questioned noted a reductive tendency in science and scholarship and equated this to an issue with fear. *Reductionism* can be fear-inducing because a reductionist approach applied when assessing complexity can lead to fragmented observations and a sense of bricolage and confusion with no central 'point' to hold the desperate elements of crisis together. To fragment and reduce in order to understand may not serve well as an aid to comprehension of complexity and may even add to the sense of overwhelming impenetrability and consequently fear. The more one tries to keep linked and related means of understanding separate the scarier things can appear. There is a sense that climate change scientists see themselves as winning the argument but still losing in the long run. The causes of fear and the demands of global society are just too numerous. The braided plait of control, reductionism and gratification *via* consumerism can mean that there is confusion over messages and uncertain consequences.

"The world is in great peril but no one is in charge...".

- Anon. Respondents

Perhaps the greatest fear alluded to is an existential projection of individual and civilizational fear – what can be referred to as individual and collective "immortality projects," as Terror Management Theory predicts (e.g., Becker, 1973; Solomon, Greenberg & Pyszczynski, 2015). But

these projections are too vague, too distant, too poorly represented to the mindset which insists that we need to 'do something now'.

This all begs the question 'who is in charge?' Among many of my respondents there appeared to be a discernment that the world is in great peril but no one is in charge, or those in charge are risk loving and reckless and don't give a damn. What do the policy makers and strategists make of fear? Is there fear at the highest levels or is this just an outcome reaction to tabloid scare stories? On the other hand, are our policy makers complacent as much of society appears to be?

The summary of responses to Question 2 can be set out in a structured systems diagram, in this case I have attempted an influence diagram (see Figure 3).

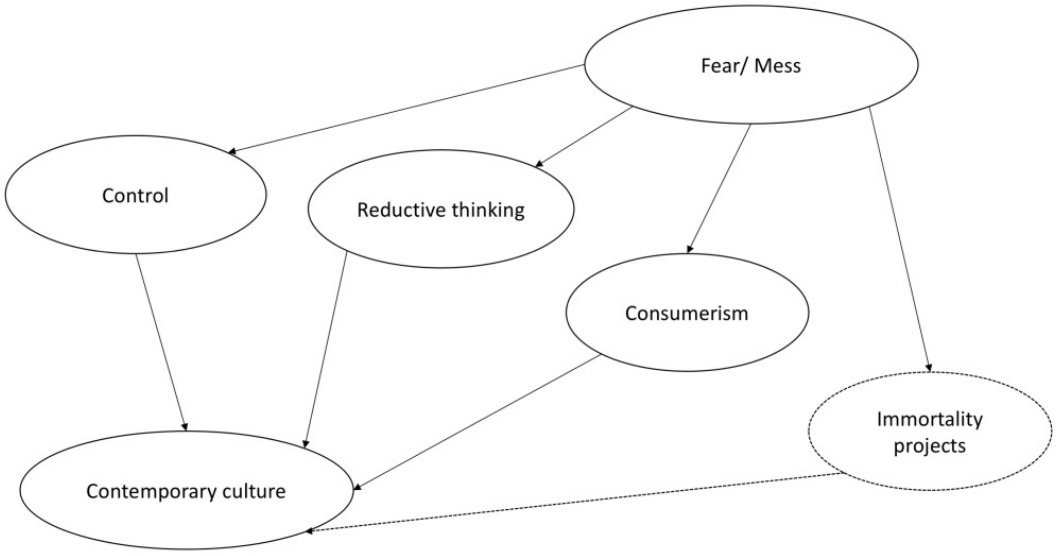

Figure 3 *An Influence Map of the Question 2 summary*

The climate change fear influences some of the main themes of our culture that is the final destination for influence. Fear influences our sense of control, who is in charge and does it matter? It emphasises the value of reductive thinking, focusing on the detail and the points of importance, maybe while running scared of the bigger picture? Fear can be blanketed out by consumerism and the forgetfulness of the delights of 21st century living (for the affluent West). It also, quietly and cryptically affects our subliminal work on our immortality projects. How many artefacts of our world today are silent witnesses to our fear of extinction?

Question 3. Do you think policy makers and populations more generally should be fearful?

There are three broad responses from the three nominal groups identified in Question 1.

The group of respondents that responded with a 'No' to Question 1 can be summarised as suggesting that fear is unhelpful and that other responses more akin to concern or agitation would be more useful. The selective application of fear emerged as an idea.

The 'Maybe' group came up with the ideas of a framework, in which fear is presented but usefully with counter measures. Means to alleviate. But beware 'manufactured consent' and the idea of the framework being in some way manipulated by social forces.

Finally, the 'Yes' group came up with a range of ideas. People are not provided with or are poorly served by our capacity to deal with large, systemic crises. Our narrow and consumerist 'way of life' obviates our capacity to think more systemically and take on an extinction-level crisis. The spirit of Winston Churchill was evoked by one respondent as a politician who had the capacity to create the safe space in which great issues could be grasped. Innovation is a fear prospect as well as a 'get out of gaol' card.

I set out the responses to Question 3 in Figure 4. Essentially there are three systems on display that relate in turn to each of the key responses from the 'No, 'Maybe' and 'Yes' groups. The core of the diagram is the Policy Making system. This can be seen in a business as usual mode in the first system that sees Policy Making interacting, influencing and being influenced. To some extent policy influences and manages social consent and this in turn is the basis for our Frameworks of Engagement (democratic media for decision making). Such Frameworks ultimately impact back on the Policy Making System. In this diagram Policy Making, Consent and Frameworks are a discrete system. This is a system which is in regular use and on display just about all the time on 24-hour news networks and in the media more generally. A second business as usual system comprises Public Concern and Agitation impacting on and being affected by Policy Making. This comprises a second system. Outside the two business as usual systems lies the prospect of systemic coherence regarding climate change fear. This is in turn influencing and being influenced by the aspiration concept of Safe Space.

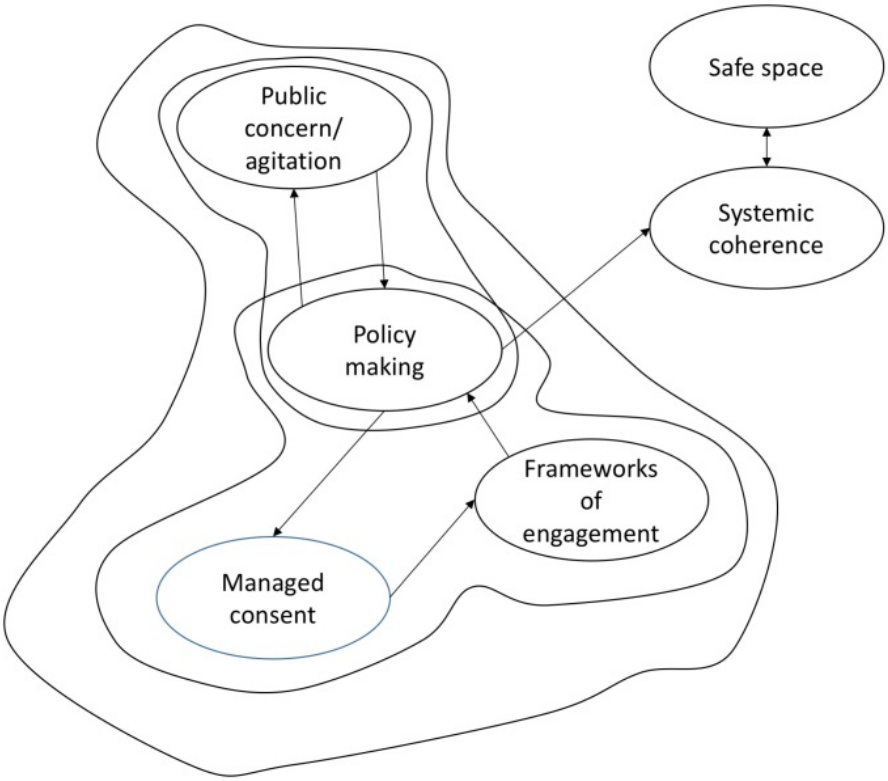

***Figure 4**. Influence Diagram of Question 3 summary*

"Climate change is accommodated and distorted in a 'business as usual' manner by the conventional media."

Question 4. Is there a problem with the way in which news in the environmental debate is broadcast to the general public?

The points made in response to this question ranged from what we might have expected (e.g. wickedness of deliberately distorted media messages and reprehensibility of distortion due to ignorance and corruption, cronyism of the media class and the political class) to more nuanced concerns (e.g. the division between the environment 'out there' and 'us', human frailty in terms of sifting what is important). Under all this lies the observation made at the outset, the naivety of naivety that there is or could be a "rational broadcast station with a brain that makes coherent choices in how it broadcasts to people who are on the receiving end."

Points made here are more about how climate change is accommodated and distorted in a 'business as usual' manner by the conventional media. Nothing new is happening but new alarms and problems are continuing to be treated in a conventional manner?

My diagram for Question 4 summary is a Rich Picture. The media is all around but there is the latent idea that messages are not being heard, the disastrous path of consumerist society is not being watched and those who can speak are either self or socially constrained in what they can and do say, and maybe how they phrase what they say. The image of the three unwise deaf, dumb and blind kids making their way to the cliff edge is possibly apt. What is missing is the noted: 'mother ship' of sensible guidance and news. This has resonance back to Question 3 for me, and the idea of a 'safe place' and the necessary systemic/ holistic understanding which it pre-supposes.

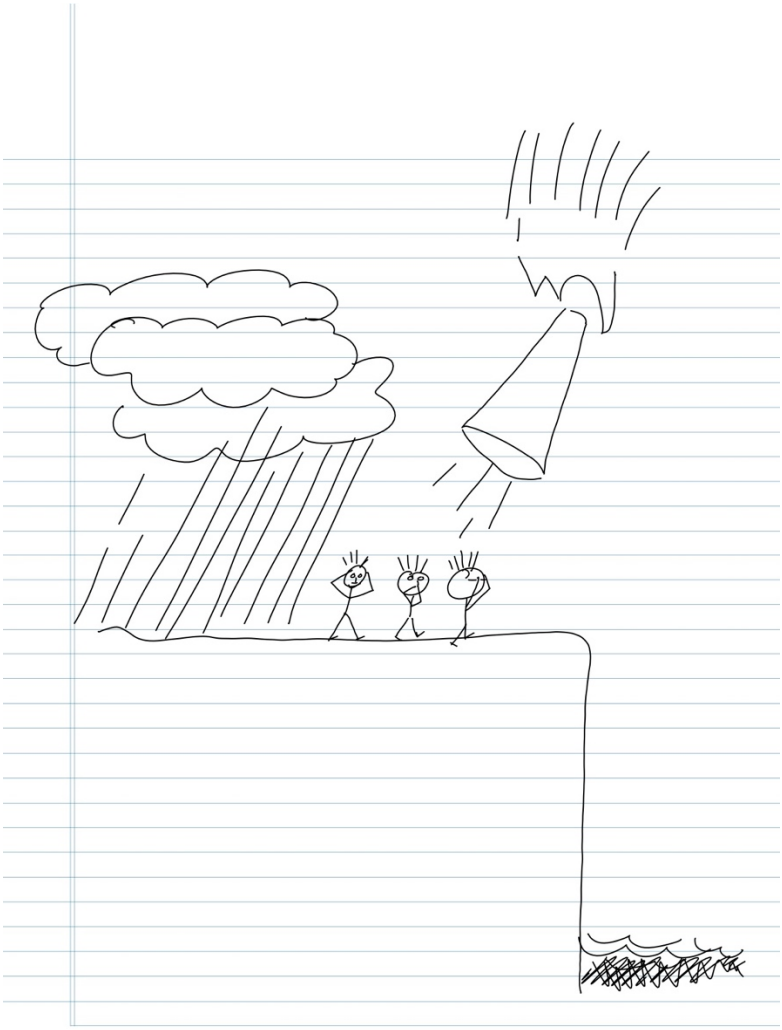

Figure 5*. Rich Picture of Question 4 summary*

Question 5. Can a response of fear be useful with regard to complex problems?

A minority considered fear unhelpful and our worst and reptilian response to issues. However, and surprising to me, overwhelmingly the experts and concerned individuals represented in my sample considered fear to be a useful thing but only given a wide range of provisos. Some thought that fear was a poor mobiliser, anger is a better catalyst. Others did see value in fear as a means to catalyse action but again there are obvious issues linked to this, issues of paralysis and an idea of 'good' and 'bad' or 'wrong' fear—types of fear and the morality of fear application in a deliberative manner. The issue of how to apply fear in large groups emerged. The idea that fear could be used if it was used in a reasonable way and on the right targets, but some thought anxiety might be a better motivator. Fear as a property was argued to have value as an indicator of social health. Others considered 'contained' fear of value. I detected on several occasions a sense that we are only on the foothills of fear and that when it really kicks in, then we will see the value it can bring, including amplifying and accelerating change. Finally, fear can be a call to and emancipator of a response that can be related to courage.

Trying to capture the main themes from the responses to Question 5, I set out my take in Figure 6 In this diagram I make use of the influence diagram approach again and return to the cycle of fear which was inspired by Bourke's (2005) book on fear as manifest historically across culture.

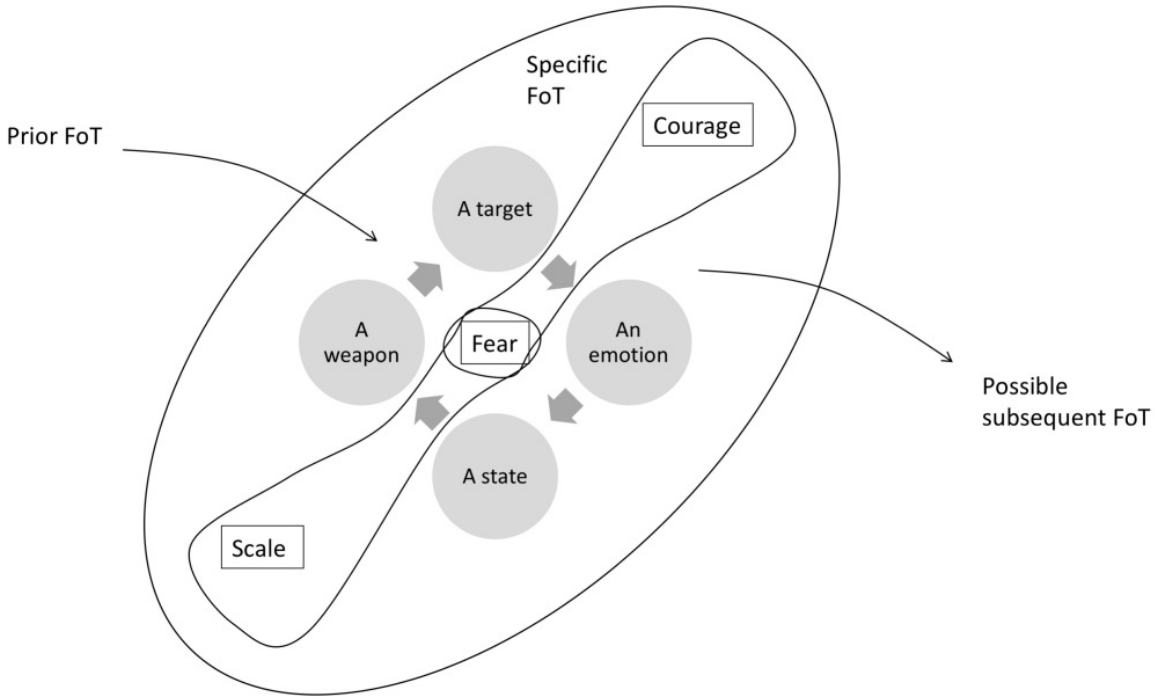

Figure 6 *Influence diagram, an update to the cycle of fear, summary of Question 5*

The key ideas which emerge for me are fear reformulation or recurrence, scale and (as a late but interesting observation) courage. I represent these in the cycle diagram. Fear continues to

operate as the core of a system that cycles through conditions of weapon, target, emotion and state (a Paradigm of Fear). But the fear system is itself dynamic.

There are points of departure where fear is transitional to a new system and a new formation. If the model appears a bit fixed, then the two polarities are added, on the one hand courage as one type of response to fear, possibly a response which can lead to new emergent properties (Black Swan outcomes?) which may again be part of the transition to a new manifestation of fear or the removal or reduction of the fear condition. On the other hand, fear can be seen as effective within different levels of scale, from the individual to the widest social context. Scale and courage are also linked *via* the *fear system*. The whole is dynamic, all aspects of the system are dynamic and can move. In this diagram I show the main fear system, what I can call the specific Formation of Terror (or FoT) as the outcome of some prior FoT. This in turn leads to further dynamics and subsequent transitions in the FoT.

"The problem with fear being applied, even for a "good" (define 'good' and open another barrel of issues) cause, requires strenuous review of stands on ethics and responsibility."

4. Conclusions

To return to my original questions:

- Is fear weaponised by lobbyists in order to promote public response?
- If fear is weaponised to prompt populations to change, is such action ethical and responsible?
- Do climate change activists have a responsibility to orientate arguments to the rational and reflective rather than the instinctive and automatic?

The results from the interviews and questionnaire responses set out in this paper are inconclusive and speculative but provocative of further research questions.

The first question might be better stated as 'should' fear be weaponised by lobbyists? From the responses set out here it would seem that there is a widespread acceptance of this (indeed it might be said to be very apparent in the work of Klein, Brown and others) but there are an equally wide range of provisos on such weaponization. It seems that the second questions pre-guesses this response. The problem with fear being applied, even for a "good" (define 'good' and open another barrel of issues) cause, requires strenuous review of stands on ethics and responsibility. It would seem that issues of morality and objectives also come into this debate and here further difficult questions arise relating to 'who', 'how' and 'why'.

Questions of responsibility and rationality exercise my respondents and some have noted the irresponsible use of fear and catastrophe by climate change activists as a means to attempt to elicit a response. The problem arising from this is, fear used in a Khaneman System 1, knee jerk, piece meal manner will probably result in unintended, systemic outcomes which may be more productive of further fear and System 1 fear consequences. The issue here relates to the understanding of the fear dynamic (i.e., fear system) – what I have described as the Formations of Terror and how they move. Simply put, when fear is invoked or encouraged in a System 1 manner, the consequences can snowball, we are not in rational territory. Figure 6 is one representation of this dynamic with a FoT being derived from previous FoT and being productive of future, unknown and unguessable FoT.

This paper is the result of a thought experiment and is research still in progress. My results to-date are the outcome of a limited and qualitatively assessed group of responses. The responses to questions relating to the manifestation of fear are varied and sometimes conflicting. One theme that emerged in response to several of the questions was the need for better thinking. There is not a clear lead on what this means but ideas around holistic, cybernetic or systemic thinking in order to address the complexity experienced might be one interpretation. Such a mode might be represented as an S3 (to add to Khaneman's S1 and S2). Related to this was the value of containment and the psychological idea of a place where transition can be discussed in safety. Fearsome ideas are best addressed in a safe place, in a contained place. Society can tend to react with terror to the prospect of an overwhelming catastrophe but over time this results, unfortunately, in learned helplessness and a sense of vulnerability and then complacency and apathy; that is, until the next dose of fearful evidence emerges and a resulting terror formation. The cycle repeats, and in order to understand cyclic behaviour I would note (again) a systems, S3 approach could be helpful.

A further dynamic emerges, displayed in Figure 7. Here are two reinforcing cycles: one related to targets, emotions, states and the weapons of terror (what I have referred to as the Paradigm of Fear), the other to containment, addressing meaningful issues in meaningful ways, thinking up to scale and delivering systemic responses. One loop is negative and spirals down implying further fear and panic (i.e., FoT). The other loop offers hope, courage and the containment of the fear impulse/ weapon.

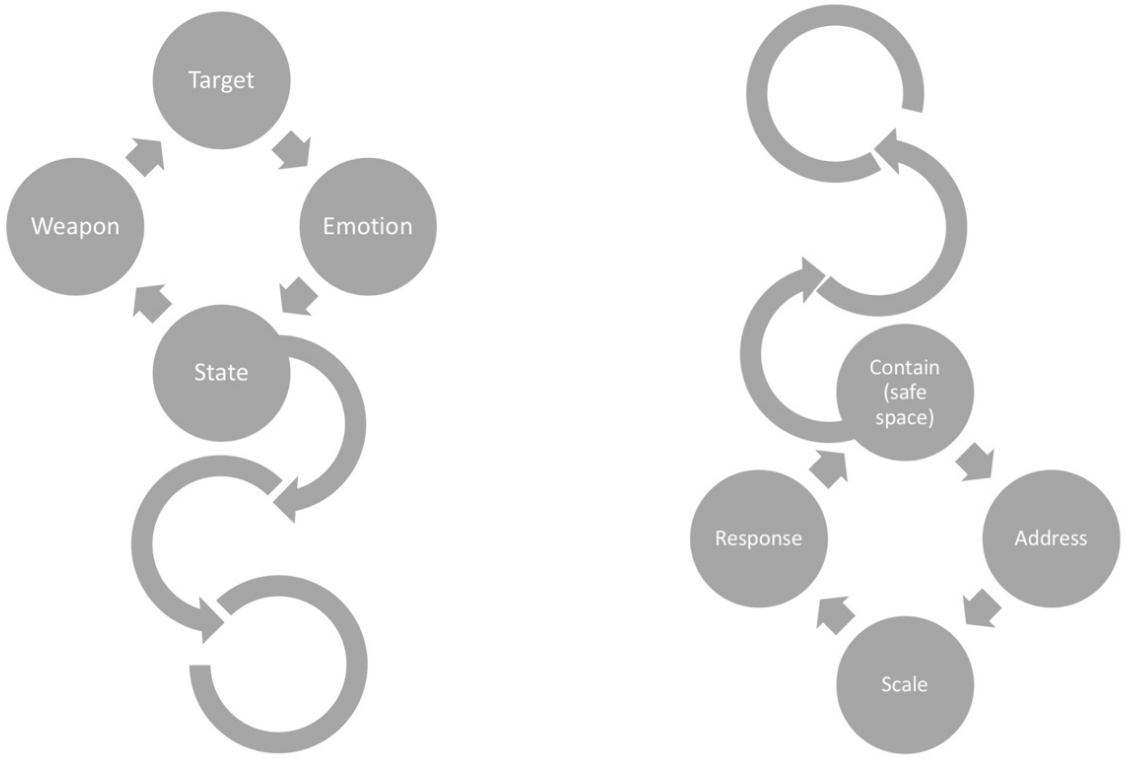

Figure 7. *Reinforcing systems diagrams of despair and hope*

Endnote

In an attempt to popularise and make accessible the fear thinking which this Journal is also now bringing to proper scrutiny, I had produced a comic/ graphic novel presenting the main themes from the Formations of Terror book. The site offers a free copy of the novel, contains an animation and also some supplementary information. Visit https://www.open.edu/openlearn/project-fear to take a look.

References and Selected Bibliography

Adolphs, R., 2013. The biology of fear. *Current Biology, 23*(2), 79–93.

Aho, J., 2013. Book Review. Michael Laffan and Max Weiss (Eds.): *Facing Fear: The History of an Emotion in Global Perspective*. *Human Studies, 36*(1), 153–157.

Appadurai, A., 2006. *Fear of Small Numbers: An Essay on the Geography of Anger*. Durham: Duke University Press.

Appignanesi, L., 2005. Book Review. *Fear : a Cultural History* by Joanna Bourke. *The Independent*, (Friday 25th February), pp.6–8.

Arendt, H., 1950. *The Origins of Totalitarianism*. New York: Harvest Books.

Bauman, Z. 2006. *Liquid Fear*. Polity books, Cambridge.

Becker, E., 2011. *The Denial of Death*. London: Souvenir Press.

Bourke, J., 2005. *Fear: a cultural history*. London: Virago.

Brown, L., 2011. *World on the Edge.* New York: W. W. Norton and Co.

Burke, E., 1757. *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. Oxford: ECCO-TCP/ Eighteenth Century Collections Online/ University of Oxford.

Carson, R., 1962. *Silent Spring.,* New York: Houghton Mifflin.

Chambers, R. (2002) *Participatory Workshops: A Sourcebook of 21 Sets of Ideas and Activities*. London: Earthscan.

Checkland, P. B., 1981. *Systems thinking, Systems Practice*. Chichester: Wiley.

Davis, M., 1999. *Ecology of Fear*. New York: Vintage Books.

Diamond, J., 2013. *Collapse: How Societies Choose to Fail or Survive*. Los Angeles: Penguin Books.

Ehrlich, P.R., Ehrlich, A.H. & Holdren, J.P., 1977. *Ecoscience: population, resources, environment*. San Francisco: Freeman.

Furedi, F., 2006a. *Culture of Fear Revisited*. London: Continuum International Publishing.

—. 2006b. *Politics of Fear: Beyond Left and Right*. London: Continuum International Publishing.

Gardner, D., 2008. *The Science of Fear: Why We Fear the Things We Shouldn't - and Put Ourselves in Greater Danger.* New York: Dutton.

Gladwell, M., 2000. *The Tipping Point: How Little Things Can Make a Big Difference.* New York: Little, Brown and Co.

Glassner, B., 2010. *The Culture of Fear*. New York: Basic Book.

Kahneman, D., 2011. *Thinking Fast and Slow*. London: Penguin.

Klein, N., 2015. *This Changes Everything: Capitalism vs the Climate*. London: Penguin.

Laffan, M. & Weiss, M. Eds., 2012. *Facing Fear: the History of an Emotion in Global Perspective*. Princeton and Oxford: Princeton University Press.

Lewin, K. (1946) Action Research and Minority Problems.' *Journal of Social Issues, 2*(4), 34–46.

Marshall, G., 2014. *Don't Even Think About It: Why our Brains are Wired to Ignore Climate Change*. Bloomsbury, New York.

McIntosh, A., 2008. *Rekindling Community: Connecting People, Environment and Spirituality*. Totnes, Devon: Green Books.

Open University, 1999. *Systems Thinking and Practice: A Primer / T551*. Milton Keynes: Open University.

Phillips, L., 2015. *Austerity, Ecology and the Collapse-Porn Addicts: A Defence of Growth, Progress, Industry and Stuff*. Alresford: Zero Books.

Rapley, C.G. et al., 2014. TIME FOR CHANGE ? Climate Science Reconsidered. Available at: http://www.ucl.ac.uk/public-

Reber, A., & Reber, E., 2001. *Dictionary of Psychology*. London: Penguin Books.

Solomon, S., Greenberg, J. & Pyszczynski, T., 2015. *The Worm at the Core: On the role of death in life*. London: Penguin.

Steimer, T., 2002. The Biology of Fear - and anxiety -related behaviours. *Dialogues in Clinica Neuroscience, 4*(3), 231–249.

Sterman, J.D., 2011. *Sustaining Sustainability: Creating a Systems Science in a Fragmented Academy and Polarized World*. In Sustainability Science: The emerging paradigm and the urban environment. New York: Springer.

Surowiecki, J., 2005. *The Wisdom of Crowds: Why the Many are Smarter Than the Few*. London: Abacus: New Edition.

Taleb, N., 2008. *The Black Swan*. London: Penguin.

Tuan, Y., 1979. *Landscapes of Fear.* New York: Pantheon Books.

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His signature work is on methodologies. He's developed and applied a number of methodologies including: Multiview for information systems, Triple Task for group work and, most importantly Imagine. This last approach has been applied all over the world and in all kinds of contexts from internet 2 to community conflict; from London Olympic Legacy to the future of the UK Health Service. He has used Imagine in a collection of sustainable coastal community projects in Malta, Lebanon, Cyprus, Slovenia, Algeria and Spain. His work on Project Fear is a leading-edge exploration in fear management/education. *Bayswater Institute and the Science, Technology, Engineering and Mathematics Faculty, Open University, UK. MK7 6AA Telephone 07818062177 E-Mail:* Simon.Bell@open.ac.uk

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