



# Kent Academic Repository

**Mills, Michael F. (2018) *Preparing for the unknown... unknowns: 'doomsday' prepping and disaster risk anxiety in the United States*. Journal of Risk Research, 22 (10). pp. 1267-1279. ISSN 1366-9877.**

## Downloaded from

<https://kar.kent.ac.uk/66966/> The University of Kent's Academic Repository KAR

## The version of record is available from

<https://doi.org/10.1080/13669877.2018.1466825>

## This document version

Author's Accepted Manuscript

## DOI for this version

## Licence for this version

UNSPECIFIED

## Additional information

## Versions of research works

### Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

### Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in *Title of Journal*, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

## Enquiries

If you have questions about this document contact [ResearchSupport@kent.ac.uk](mailto:ResearchSupport@kent.ac.uk). Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).

# **Preparing for the Unknown... Unknowns: “Doomsday” Prepping and Disaster Risk Anxiety in the United States**

Michael F. Mills

School of Social Policy, Sociology, and Social Research, University of Kent, Canterbury, United Kingdom

Email: [mfm22@kent.ac.uk](mailto:mfm22@kent.ac.uk)

ORCID ID: 0000-0003-0832-9591

Twitter: [Michael\\_F\\_Mills](https://twitter.com/Michael_F_Mills)

# **Preparing for the Unknown... Unknowns: “Doomsday” Prepping and Disaster Risk Anxiety in the United States**

## **Abstract:**

This article examines the collapse-based thinking energising “doomsday” prepping: a growing American phenomenon centred on storing food, water, and weapons for the purpose of surviving disasters. Existing understandings of prepping indicate that its practitioners are driven to prepare by peculiar and delusional certainty that apocalyptic collapse will occur in the near future. This view, however, has not yet been tested by empirical research. This article draws on ethnography with thirty-nine preppers in eighteen American states to present a new understanding of this phenomenon, as it shows prepping consistently being practiced in the *absence* of both apocalyptic predictions and certainty regarding the future occurrence of disaster. Demonstrating that preppers’ activities are undergirded by *precautionary* projections around numerous non-apocalyptic “threats”, the article argues that prepping principally responds to *uncertain anxieties* around disaster *risks*. Moreover, it establishes that these imprecise anxieties are regularly influenced by preppers’ consumption of disaster-based speculation in mainstream news media – showing that their concerns tend to emerge in response to numerous disaster risks that are widely reported and recognised in wider American culture, rather than marginal conceptions of “threats”. The article therefore contends that, rather than being a marginal apocalyptic practice, prepping is a phenomenon with clear, previously unacknowledged links to broader risk communications and concerns in the 21<sup>st</sup> century United States – one that must be understood as a reflection of the broader resonance of disaster-based speculation and uncertainty in this cultural context.

## **Keywords:**

Anxiety; Disaster; Precaution; United States; Risk Perception

## **Word Count (Main text and References):**

7,995

*'So - and be honest – what do you think? Am I paranoid or crazy ... or what?'*

(Clint, a prepper in New Mexico)

## **Introduction: The Rise of Prepping**

Prepping is a pursuit undertaken by those who prepare to independently survive disasters – mass casualty events in which food and basic utilities may be unavailable, government assistance may be non-existent, and survivors might have to individually sustain their own survival (see Perry, 2006; Reinhardt, 2017). It is also a primarily American phenomenon, with the USA being the only country in which interest in prepping is deep enough to sustain a large network of public prepping conventions. Within this context, prepping represents a more intense pursuit than other forms of short-term 'emergency preparedness' undertaken by many Americans in readiness for localised storms, with preppers being distinct in their concerns towards "threats" beyond natural disasters (potentially including terrorist attacks and international wars) and the prospect of *medium-to-long-term* survival. While it can take on various forms determined by its individual practitioners' preferences, prepping is typically geared towards addressing a set of basic survival needs: food, water, shelter, security, and medicine. It thus frequently involves the stockpiling of preserved ('survival') food, water, and medical supplies, as well as developing means of self-defence (including proficiency with fire-arms). It can also involve plans to retreat to remote locations in the event of disaster (referred to by many preppers as 'bugging out'), or secure one's home as a centre for personal survival ('bugging in').

Whilst it is impossible to determine exactly how many American preppers there are today – there are no readily available prepping databases, for instance – the state of the industry that caters to this pursuit tells a clear and curious story concerning its recent trajectory. Although an obscure and almost invisible subculture a decade ago, prepping has since rapidly grown into an increasingly mainstream phenomenon. Since approximately 2007/8, preserved food companies have reported as much as a 708% increase in revenue (Murphy, 2013), while the personal preparedness industry's annual worth has (more broadly) been estimated to have grown to half a billion dollars (Martin, 2012).

As part of this growth, the last decade has witnessed the emergence of a vibrant circuit of survival-based expos throughout the United States. These are events that typically host thousands of attendees, stalls stacked with survival goods, and workshops led by a range of prepping “experts”. Including *PrepperFest* and *PrepperCon*, 46 such events took place in the United States between March 2014 and May 2015. Meanwhile, demand for ‘survival food’ products has even led to their arrival on the shelves of major American chain stores, including *Costco*, *Kmart*, and *Bed, Bath & Beyond* (Fox29, 2016; Warchol, 2014). While prepping lacked this visibility a decade earlier – at which point there was no such circuit of prepping expos nor this dynamic survival industry – recent estimates suggest that between three and five million Americans are now engaged in prepping, marking this out as a notable social phenomenon deserving scholarly attention (Lawson, 2017; Ogg, 2013).

It is clear that prepping is undergirded by anticipation of major disaster(s); after all, the expectation of a catastrophe to be survived is fundamental to this pursuit. Nevertheless, little is currently known about the *ways* that preppers think about such events – specifically, whether they regard disaster as a certainty or mere possibility, and whether they anticipate some kind of apocalyptic or *temporary* collapse. Drawing on ethnography with thirty-nine American preppers in eighteen different states, this article examines the disaster-based expectations fuelling this growing culture of preparedness. In doing so I challenge prevailing, yet largely unsubstantiated, claims that prepping principally arises from delusional predictions of permanent (apocalyptic) collapse within the outermost fringes of American society. Here, I present a new understanding of prepping as a phenomenon underpinned by *broad, uncertain anxieties* towards numerous non-apocalyptic disaster risks (including terrorist attacks, natural disasters, and pandemic diseases). Additionally, the article also offers insight into the wider conditions that shape this trepidation. Particularly, I will demonstrate that preppers’ own testimonies acknowledge that their anxieties respond to mainstream media reporting and government warnings around several disaster risks. Given this, the article will conclude by contending that prepping must be understood (at least in part) in relation to a wider resonance of disaster risk concerns in mainstream American culture, elsewhere identified within literature describing a ‘culture of fear’ in the contemporary United States (see Glassner, 2010).

The article will progress by firstly addressing existing knowledge around the themes it covers. It will begin by providing an overview of literature in which popular American fears of disaster have been linked to recent trends in media-led risk communication. This is followed by a brief overview of literature characterising prepping as an apocalyptic oddity *detached* from this backdrop of mainstream disaster risk concern. The ethnographic methods underpinning the article's argument will then be outlined before its aforementioned main contentions, which challenge existing understandings of prepping, are presented.

## **A 'Culture of Fear' and Disaster Risk Concern in the United States: A Cauldron for Prepping?**

Literature addressing disaster risk perception gives reason to suspect that prepping's popularity relates to a broader cultural context – specifically, one in which disaster risks are established as a prominent and sustained focus of public, media, and government attention in the United States. Much has been made of hazardous risk's evolution into an increasingly ubiquitous topic of Western concern throughout the last fifty years – including the emergence of *disaster* risk, more narrowly, as a subject of popular unease within this period (see Beck, 2009). Regarding disaster risk's resonance as a theme of consternation in the United States, in particular, numerous accounts have identified low-level worries around disaster as a progressively normalised feature of the contemporary American cultural script. Referencing a 'culture of fear' (Furedi, 2006; Glassner, 2010), these works address popular unease around catastrophes as an identifiable facet of contemporary social life – describing a lingering concern towards numerous "threats" within the collective American psyche (see also Altheide, 2017; Wuthnow, 2010). That said, none describe a setting in which *all* Americans fear disasters, and do so hysterically. These contributions *instead* suggest the existence of widespread but *tempered* trepidation, captured elsewhere by recent polls suggesting over 40% of Americans have feared of losing a loved one to terrorism for fifteen of the last sixteen years (Gallup, 2017), and more than a third are 'afraid' of: international conflict (47.5%), economic collapse (44.4%), cyber-attacks (39.1%), a collapse of the

electrical grid (35.7%), and biological warfare (41.8%) (Chapman, 2017). While such polls no doubt contain a degree of error and do not offer a detailed sense of the *intensity* of their participants' concerns – which may often be more moderate than some observers imagine – their results nevertheless offer a tentative indication of the trepidation addressed by Furedi, Glassner, and others describing an American 'culture of fear'. Meanwhile, although earlier waves of significant, specific fears are acknowledged in such accounts – such as that of Cold War nuclear conflict – the main substantive claim here addresses the more recent development of a *perpetual* cultural anxiety around *multiple* disaster risks.

A common claim from this perspective states that news media reporting has played a significant role in establishing this unease. This chimes with a vast literature in which mainstream media outlets have been recognised as exercising significant influence over popular interpretations of disaster risk (see, for example, Murdock et al, 2003; Pidgeon et al, 2003; Rausch, 2013; Wyatt, 2000). Particularly, research has frequently indicated that consumption of disaster-related news is generally a powerful predictor of disaster-related fear, with reporting tending to amplify audiences' perceptions of risks far beyond those of relevant experts (Atkeson and Maestas 2012; Barabas and Jerit, 2009; Kasperson and Kasperson, 1996; Wahlberg and Sjoberg 2000; Webb, 2006). This outcome is frequently attributed to processes of "hyping", whereby reporting tends to concentrate on dramatic fear-arousing accounts of survivors (Ali, 2013; Houston et al, 2012; Kasperson et al, 1988; Slovic, 2000; Vasterman, 2005; Vasterman et al, 2005; Wenger and Friedman, 1986), as well as the hunt for information concerning the materialisation of similar events in the *future* (Coppola, 2005: 43-44; Kitzinger and Reilly, 1997). Numerous studies have therefore highlighted cases in which coverage of disaster risks has contributed to amplified public fears, including reporting around terrorism (Izard and Perkins, 2011; Jha and Izard, 2011), cyber threats (Debrix, 2001; Lawson et al, 2016), and pandemic disease (Espinola et al, 2016).

Suggesting popular trepidation towards disaster risks has been shaped by these dynamics, numerous accounts have claimed news media content and consumption has been integral in the evolution of America's 'culture of fear'. Here it is suggested that disaster has progressively developed

as a prominent fixture of media attention, be it through reports of previous incidents or others anticipated in the future. For instance, coverage of 9/11, Hurricane Katrina, and numerous other disasters around the globe (mostly consumed through 24/7 television and online media) has been deemed influential in this process, in so far as it has rendered the ‘reality’ of disaster immediately apparent to large audiences in ways not possible in earlier decades (Wuthnow, 2010; Glassner, 2010). In a similar vein, media discussions of cyber-attacks and possible pandemic disease (including strains of avian and swine flu) have elsewhere been highlighted as areas in which *speculative conjecture* appears to have become increasingly prominent, and encouraged public fear (Debrix, 2001; Furedi, 2006; Wuthnow, 2010). Here media hyping has recently been linked, for instance, to ‘panic’ and ‘paranoia’ around a mass Ebola outbreak in the United States – a disease that was the top news story in the US during October 2014, prompting ‘worry’ among two-thirds of Americans, while ultimately infecting just four patients (see Gesser-Edelsburg and Shir-Raz, 2017; Gonsalves and Staley, 2014; Schultz et al, 2016; Towers et al, 2015).<sup>i</sup>

Within this process, the significance of government messaging (which tends to be disseminated through, and often set the agenda for, news media coverage) has also been highlighted (see Vasterman et al, 2005; Webb, 2006). Addressing such dynamics, Altheide (2017), Furedi (2006) and Wuthnow’s (2010) work has, for instance, posited that government communications have recently encouraged a fearful, speculative outlook among the public concerning terrorist threats (see also Aradau and van Munster, 2007; Mythen and Walklate, 2008; Izard and Perkins 2011). This is considered to have been particularly prominent in the “War on Terror” narratives promoted by George W. Bush’s recent administrations (2001-2009) – perhaps most (in)famously here in former Defence Secretary Donald Rumsfeld’s (in)famous call for vigilance against ‘unknown unknowns’. Establishing a “What If?” outlook toward security (Mythen and Walklate, 2008), such rhetoric is claimed to have legitimated perpetual speculation towards nebulous threats throughout American policy agendas, media debate, and wider public consciousness (see also Altheide, 2017; Furedi, 2006; Glassner, 2010).

Within this dynamic, recent government messaging has also been observed to emphasise (through mass media) that *personal preparation* is even a necessary response to the ongoing threat of



disaster. Encouraged to (in the words of the Department of Homeland Security's Citizen Corps homepage) prepare for 'the threats of terrorism, crime, public health issues, and disasters of all kinds', federal agencies have recently encouraged American citizens to contemplate surviving disasters without their assistance (see Mythen and Walklate, 2006). The Citizen Corps, for instance, has recommended from 2003 that Americans have a "safe room", duct tape, and plastic sheets on-hand to secure their home against (unprecedented) chemical terrorist attacks (Davis, 2007: 332). Elsewhere, personal vigilance and preparedness has been encouraged around the risk of infectious disease. This includes advice to prepare for flu pandemics by hoarding food, water, and medicine at home (see Furedi, 2006: x), as well as the Centre for Disease Control's (CDC) graphic novel *Preparedness 101: Zombie Pandemic*, which has aimed to encourage individual readiness through allegorical zombie apocalypse fiction.

This body of scholarship gives reason to suspect, then, that the recent vitality of prepping in the United States bears some relation to a wider cultural context in which news of, and concern with, disaster risks is somewhat normalised through mainstream media communications – *and* in which *personal preparedness has even been directly encouraged*. It indicates that the growth of prepping may thus be influenced (to some degree) by wider currents of disaster risk concern and communication. Nevertheless, as is shown below, existing commentary around American prepping does not suggest this to be the case – indicating, instead, that prepping is a phenomenon curiously detached from such trends.

### **Outside the Mainstream: Prepping as an Apocalyptic Fringe**

Suggesting prepping to be separate from broader currents of disaster-related unease, analyses of this phenomenon thus far have emphasised its distance from mainstream American thought. In doing so, the (relatively thin) literature that has addressed prepping's recent rise highlights two supposed features in its practitioners' fears, which combine to form a distinctly peculiar outlook on disaster. First, existing work emphasises that prepping emerges from anticipation of the *permanent* collapse of

American civilisation – predictions of an *apocalypse*, rather than a temporary crisis. Second, it suggests preppers are unusually *certain* that such destruction will transpire in the near future. In this vein, Kabel and Chmidling have described preppers as anticipating ‘a natural or man-made *apocalypse*, which will bring about the *total collapse of civil society*’ (2014: 258, emphasis added). Elsewhere, based on an analysis of National Geographic’s prepping TV documentary series, *Doomsday Preppers*, Foster similarly suggests such preppers are ‘in large part eagerly awaiting the coming of the apocalypse’ (2016: 290). As such, the nature of preppers’ concerns has thus far been identified as distinct from more widespread anxieties around disaster risks. Imbued with apocalypticism and delusional certainty, preppers’ expectations are deemed to be altogether more intense and sensational than those resonating in wider American culture.

Beyond this, Foster’s work suggests the *kinds* of disasters preppers expect are also distinct from those permeating mainstream media, government, and popular concerns. Although her characterisation is not offered with great depth, leading to a degree of ambiguity, it references a ‘xenophobic’ (p.15), ‘fascistic’ (p.15) and ‘paranoid’ (p.27) orientation in preppers’ outlooks on collapse. While particular scenarios of concern within this view are not described, this seems to suggest a fringe right-wing direction in preppers’ expectations – one somewhat in line with Hofstadter’s identification of a ‘paranoid’ strain in the American Far Right that relies on ‘grandiose theories of conspiracy’ (2008 [1965]: 4). Foster’s invocation of such themes thus appears to imply that preppers’ are relatively unconcerned with widely acknowledged disaster risks, and that the phenomenon’s rise has instead been bound up in a swelling of apocalyptic, radical right-wing theories of impending destruction – possibly propelled by fear of New World Orders or “race wars” between different ethnicities. Foster’s account, then, suggests a separation exists between preppers’ peculiar, ideologically-driven predictions and the resonance of numerous disaster risk concerns across a wider cultural mainstream – indicating that prepping’s popularity has less to do with wider fears around terrorist attacks, pandemics, and other disasters, and a closer connection with more marginal beliefs.

Nevertheless, the force of this understanding is limited by its lack of empirical substantiation. Within a very narrow literature addressing this phenomenon so far, Kabel and Chmidling (2014), and

Foster's (2014) work has only been accompanied by Christian (2016) and Kelly's (2016) analyses of prepping documentaries and Huddleston's (2016) in-depth ethnography of one localised prepping group. Up to this point, only Huddleston and Kabel and Chmidling's work has been informed by original empirical data, rendering most knowledge around prepping shallow and unreliable. Moreover, even where research *has* generated such data, it has yet to focus on the collapse-based thinking underpinning this activity. Kabel and Chmidling's (2014) study of online prepping culture shows how preppers' would address health-related needs post-disaster; Huddleston's (2016) face-to-face ethnography illuminates how preppers' explore making their local communities more 'resilient' against disaster, in addition to boosting their own personal capabilities. Thus, while valuably contributing to knowledge around prepping, the focus of empirical studies has thus far been on the *ways* that preppers ready for disaster, rather than the expectations that underpin this activity. Thus, while statements suggesting delusional apocalypticism on the part of preppers have been offered by some, research has yet to develop a robust understanding of what disasters preppers anticipate, or whether they regard catastrophe as a certainty *or risk*. As such, scholarship has also yet to clarify prepping's relationship with (or distance from) broader strains of disaster risk concern in the United States. Where an untested view of prepping prevails, it is therefore clear that an empirically-supported account of its practitioners' collapse-based thinking is required. It is here that this article intends to intervene.

## **Methods and Research**

This article is based on an 'exploratory' study of prepping that examined its practitioners' expectations of disaster (Robson 2000: 59). Underpinned by an interactionist focus, an in-depth qualitative investigation was used to develop a detailed sense of preppers' subjective outlooks: an understanding of whether they anticipated apocalyptic or temporary crisis, and whether they were certain such destruction would occur (see Silverman, 2000). Specifically, ethnography (including recorded interviews) was undertaken with thirty-nine preppers living in eighteen different American states

between March and November 2014. A purposive sampling method was used, and respondents were recruited through appeals that were published on prominent websites offering guidance in prepping skills. Ethnography is widely praised in the social sciences regarding its ability to access in-depth understandings of behaviours and their attendant meanings (see Geertz, 1973; Hammersley and Atkinson, 2007). Its use here therefore provided an appropriate strategy to develop the “deep”, empathetic appreciation of preppers’ disaster-related outlooks being pursued. A semi-structured approach was used in the interviews, on the basis that this offered the best means of simultaneously addressing my key points of interest *while also* teasing out respondents’ own narratives (Gillham, 2005). More firmly structured alternatives were less suitable given the inductive and exploratory nature of the research; it was suspected that respondents would raise unanticipated themes in conversation, and that the points they raised would require following-up. These open-ended, in-depth interviews were digitally recorded (with the signed consent of the participants), transcribed verbatim by the author, and manually analysed and coded for themes prevalent in the data.

Further elements of ethnography applied alongside interviews involved: tours of participants’ homes and prepping resources; long informal conversations that added further depth to interview data; and participation in prepping activities. Such activities would typically take place over 3-4 day visits with individual prepping families, and included medical skills training, property maintenance, the killing and butchering of livestock, and animal husbandry. This provided a “deeper” understanding of prepping than interviews alone could offer, by allowing me to: see the application of different prepping resources first-hand and understand their intended purpose; engage in off-the-cuff conversations in which respondents’ views could be probed further; and gain an insight into the experiences and activities involved in being a prepper. Ethnographic observations were recorded through handwritten field notes. These notes were also later manually analysed and coded.

## Results: Prepping, Precaution, and Anxiety

Despite the aforementioned suggestions that prepping emerges from expectations of apocalyptic collapse (see Foster, 2014: 14, Kabel and Chmidling, 2014: 258), fieldwork revealed that respondents' concerns were overwhelmingly *non*-apocalyptic. Although all prepared for medium-to-long-term survival in severe scenarios, participants refrained from apocalyptic prognostications in even their most stark descriptions of a hypothetical disaster. In other words, they typically believed that any worst-case disaster was, realistically, going to be temporary. Ray's account provided one example of this outlook, where he suggested that 'most anything that happens will get repaired to a reasonable extent within a few months'; authorities are 'gonna get it fixed eventually', he later elaborated, despite admitting that a disaster could still see 'a lot of bad things' happen. Typifying the non-apocalyptic nature of the sample's expectations, he and others explained:

I need to be able to survive that period of time. I'm not one of those that are looking for the rapture. I'm not one of those that are looking for the apocalypse... the world coming to an end. I don't see that happening, ok? (Ray)

I mean, the Yellowstone Caldera is not going to explode. We're not gonna have plagues... no zombie apocalypse... you know, all this other stuff ... you know... I don't get that at all. (Phoebe)

Importantly, the sample's rhetoric was reflected in the way that they prepared, suggesting this was an articulation of sincere belief. The scale of most respondents' preparations could sustain them no longer than a few months, and these levels of stores were often described as being more than they ever thought would be necessary. Floyd, for instance, was in possession of a 90-180 day supply of food for his family in rural Georgia; Stacey similarly explained that the scale of her preparations was 'just enough to get through a few weeks or couple of months' of disruption in east Texas. No respondents had bunkers (with the exception of one married couple), nor aspirations to have one; their limited pools of resources were comfortably accommodated in garages, under staircases, or within spare bedrooms.

In further contrast with prepping's reputation, participants' reflections on disaster were also notably permeated with *uncertainty*. Specifically, members of the sample were *uncertain that they would actually experience a collapse in their lifetime*. Their accounts thus revealed prepping to be fundamentally sustained by *precautionary* logic (Giddens, 1999: 32, see also Ewald, 2010: 286). In plain terms, respondents' prepping thus arose from a suspicion that disaster *could* occur and that preparedness *might* be required to ensure survival *if* it transpired. Monica, a married middle-aged prepper in New Mexico, explained:

For me, it's just... prepare for the worst, hope for the best. [...] You just never know what's gonna happen. [...] So that's how I look at this stuff. I don't think I'll ever need it. I hope I don't have to have it. [...] I always consider myself an optimistic pessimist; I'm positive that something's going to go wrong.

Ten participants further illuminated upon this risk-related thinking by describing their activities as an 'insurance policy' against disaster, while another also made a similar comparison:

I read somewhere once... '*You wouldn't wanna drive a car without a seatbelt on*'... and to me [prepping] goes in the same frame of thinking. [...] Most of the time we don't get in accidents, and that's great. And if we never have to use this stuff, that's even better. [...] Prepping is... at its core, it's the desire to... take precautions to be able to weather the storm. (Joshua)

Such testimonies revealed the sample were unsure of the necessity of their preparations; their efforts were evidently viewed as 'being prepared for... the unknown' (Joe).

Yet, despite being detached from fully-formed ideas of what disaster(s) could happen and how likely they could be, respondents' prepping was nevertheless premised upon the belief that such an event is not an *entirely unrealistic* prospect. Participants thus generally expressed the view that the risk of experiencing a disaster was more than negligible. Exemplifying this view, Patrick explained:

The odds that you will not be affected in some way by a disaster in your lifetime, or your children's lifetime, are actually not so slim. [...] I would say that ignoring the possibility that you may be affected by a disaster of some kind during your life... is it really sane?

Justifying such statements, respondents generally posited that the *combined risk posed by several threats* meant the possibility of disaster ought not to be dismissed. Bradley (in northern California) explained this position as follows:

[It's] being generally self-sufficient and not responding to one thing. It's not like on [National Geographic's] *Doomsday Preppers* [TV series], where they say "I'm responding to one thing – a nuclear disaster!"... I'm preparing for self-sufficiency in case... whether it be an economic collapse... terrorist attack or something else. (Bradley)

Much like Bradley, other respondents regularly cited a *list of potential disasters* they believed *could* occur when explaining why they had come to engage in preparedness during the last decade – this generally included terrorist attacks, foreign wars, the spread of infectious disease, damage to the American power grid, natural disasters, and economic collapse. While no single scenario was deemed particularly likely to materialise, it was the perception of this 'host of threats' (Clint) that gave currency to respondents' concerns and preparations. Again, this rejection of specific predictions was consequently reflected in the practicalities of the sample's preparations, where participants' efforts tended to simultaneously focus on multiple scenarios – or, in Ruth's words, 'a ... change of life... whatever that may be'.

Respondents' testimonies thus ultimately indicated that their views lacked the (delusional) certainty recently linked with prepping. Simply put, the sample expressed broad disaster-related concerns permeated with significant degrees of nebulosity and doubt, which cannot be made sense of within the understandings of prepping outlined earlier in the article. Consistently conveying a precautionary desire to "be prepared" in the face of an 'economic collapse... terrorist attack or something else' (Bradley) – or a general 'uneasiness' (Hannah) removed from a singular object cause – respondents' outlooks ultimately emanated from '*objectless*' anxieties towards disaster risks (Hall,

2012, see also Bourke, 2005: 293). This term better encapsulates the experience of the sample than does a description of a singular ‘fear’, in particular, because it addresses the broad nature of the trepidation expressed by preppers, which fused several concerns into an outlook that ultimately rose above any narrow focus. Not exclusively concerned with terrorism, disease, war, or any other particular scenario, participants’ testimonies ultimately communicated a lingering, general, and *anxious* perturbation around the possibility of disaster.

### **‘One needs look no further than turning on the television’: Preppers’ Anxieties and Mainstream Disaster Risk Communication**

Following on from the findings presented above, it is worth contemplating the *roots* of preppers’ anxious outlooks, as well as how they can be situated in a wider context. With this in mind, the article will now proceed to outline how preppers’ anxieties around disaster risks can be (partially) explained within a broader setting. In doing so, it is worth drawing the reader’s attention to a theme in the data that has not yet been emphasised: the lack of supposedly ‘fascistic’ and ‘paranoid’ (Foster, 2014: 15, 27) prepping characteristics in respondents’ accounts. As is reflected in the analysis presented thus far, and the reader may have indeed already noted, participants’ anxieties were not premised on concerns exclusive to extreme right-wing ideology. Rather, they tended to echo unease around terrorism, pandemic disease, and natural disasters that the beginning of this article identified as matters of *wider* mass media, government, and public concern in the 21<sup>st</sup> century United States. This is indeed significant as a demonstration of the relatively mainstream nature *and roots* of respondents’ anxieties. While this congruence between preppers’ concerns and those in wider discourses did not *automatically* indicate that the two were intertwined, the rest of this article will now discuss how the sample’s anxious concerns around terrorism and other disasters *were, indeed, demonstrably influenced by their consumption of mainstream news media and government messaging around such themes*. To be clear, this is not to propose a crude theory of prepping, in which I claim this phenomenon is purely driven by media and government discourses. As Furedi (2016) notes, such a position on media-effects



tends to adopt a condescending outlook towards audiences as easily manipulated masses, even giving rise to elite alarmism about popular media consumption. Thus, I am not suggesting that preppers' are simple-minded individuals easily swayed by any-given news story. I am nevertheless, highlighting a key theme in my research findings, which was that preppers' activities are nevertheless *partly* inspired by interpretations of disaster risks shaped by the content of mainstream news media.

To begin, the ethnography revealed a clear and frequent relationship between respondents' exposure to disaster risk reporting and their prepping. Showing their unease to be energised by the consumption of images and forecasting in various mainstream outlets, respondents regularly recognised that the news cycle informed their concerns over collapse. In such admissions, they *unanimously* testified that rolling 24/7 coverage of previous incidents – including Hurricanes Katrina and Sandy, the 2008 recession, as well as terrorist attacks in the USA and abroad – had significantly influenced their *initial entries* into prepping. The most commonly referenced example in this vein was Hurricane Katrina in 2005. Monica (like many others) explained that watching catastrophe unfold in New Orleans was when 'a light came on' for her regarding her desire to be prepared, prompting an exploration of prepping practices in the ensuing years. Elsewhere, Patrick provided a general summary of the ways his anxieties were charged (and re-charged) by the collective weight of numerous disaster stories – admitting 'there's just something every month [on the news] that convinces me that *anything* can happen *anywhere*'. This and the other accounts suggested that consistent interaction with images and reports of disaster feeds into preppers' concerns – that their initial and continued interest in prepping arises from a regular engagement with a multitude of disaster-related images that make experiencing a catastrophe appear a realistic possibility.

Beyond mediated observations of disasters that had *already occurred*, participants also highlighted that news media speculation around *future* crises continued to provoke their trepidation over ongoing scenarios. Addressing developing stories at the time of his interview in the autumn of 2014, Joshua's comments offered a typical illustration of how the sample's anxieties tended to be charged with takeaways from ongoing news-media speculation:

One needs look no further than turning on the television and seeing the first three big stories that come to mind. [...] I mean ISIS, [the Russian invasion of] Ukraine, Ebola. These are all things that likely won't come home, but I do think that it's not unrealistic to consider them and at least have it in the back of one's mind, "Ok, what if?" And not to *obsess* about it, but at least to just say, "Ok, *what if* there was a catastrophe?"

Time spent at Gloria's suburban bungalow in Florida revealed a similar dynamic, in which she would express fears about an attack by ISIS on American soil that had actually been a feature of a cable news discussion she was watching as I arrived at, and she introduced me to, her home. More broadly these accounts fitted into wider pattern in which respondents' concerns referenced, and appeared to be energised, by stories of the day – without being asked a question pertaining to these themes, 32 out of 39 respondents expressed concerns regarding the two biggest disaster-related stories of the fieldwork period: Ebola and ISIS. Beyond exposure to prior events, fieldwork thus evidenced that respondents' interaction with speculative reports of future disasters plays its own role in the continuation of their anxieties and preparations – providing a sense that collapse could not be dismissed and that developing "threats" ought to be anxiously monitored and considered going forward.

Within this dynamic, fieldwork also indicated that government interjections in media discussions around disaster risks impact upon preppers' anxieties and activities. It was clear that official statements concerning the presence of disaster risks – and the *direct need for personal preparedness* – influenced the seriousness with which respondents regarded disaster and their prepping. Take, for instance, the weight placed upon government projections in Ray's musings on financial instability:

Do I believe that we could have an economic collapse, as happened in Argentina a number of years ago? Yes I do. Just look at 2008 where the president and Congress were saying there was gonna be a cataclysmic failure of the financial system in the whole country, and that the world would be down the tubes, ok. Are they the tin-foil hat wearing, you know... lunatics?

You know, we're talking about the president and all the major financial institutions, ok? They claim it just about happened.

In keeping with this outlook, various respondents' also acknowledged that their preparedness was influenced by official warnings and campaigns that they encountered through news reporting. Joshua, for instance, noted that his early interest in prepping had intensified after discovering in the news 'that FEMA [the Federal Emergency Management Agency] recommends keeping two-weeks of water'. Bradley similarly noted that he had learned his north-Californian locale was one of the most flood prone areas in the country from official warnings in news reporting; he explained this had inspired much of his initial preparedness, which had since extended beyond prepping for floods. For multiple respondents, these were messages that validated their anxiety and prepping (even as it went beyond the small-scale preparations recommended by FEMA and other agencies). Their belief that the risk of collapse was realistic – and that preparedness was worthwhile – was thus demonstrably emboldened by official warnings that bestowed such concerns with legitimacy. Elsewhere Zack, who began prepping in 2010, explained 'one thing that really spurred me to really being interested in prepping' was FEMA's warnings 'that motivated you to plan ahead'. He put it as follows: 'I said: "You know what? If the government... is recommending that you get prepared for disasters, it might not be a bad thing to think about."' Stories like this echoed throughout the sample – both across those who expressed faith in official disaster planning, and others (particularly post-Hurricane Katrina) less inclined to praise federal capabilities.

Altogether, such accounts indicated that the anxieties and activities of preppers maintain a meaningful relationship with communications around disaster in mainstream media and, thus, a wider cultural setting. As was addressed earlier, the availability and content of disaster news reporting and official warnings concerning disaster has been widely recognised as shaping popular concerns around numerous risks (e.g. Wahlberg and Sjoberg 2000). In an American context, it has already been suggested that the prominence of reporting (and government communications) concerning terrorism, infectious disease, economic turbulence, foreign wars, cyber-threats and other possible disasters has contributed to a 'culture of fear' (Glassner, 2010). As addressed earlier, this effect has previously been

observed empirically; for example, where media speculation about the possibility of disaster has seemed to inspire exaggerated trepidation (or ‘panic’ and ‘paranoia’) around terrorism, pandemics, and other “threats” (Gesser-Edelsburg and Shir-Raz, 2017; Gonsalves and Staley, 2014; Izard and Perkins, 2011; Jha and Izard, 2011; Schultz et al, 2016; Towers et al, 2015). While literature around prepping has tended to distance it from this broader context, the contents of this article demonstrate that preppers’ concerns with risk and preparedness are indeed intertwined with such mainstream dynamics. While it would be over-simplistic to propose a direct media-effects model in which preppers’ activities are seen as an unmediated consequence of wider messaging (see Furedi, 2016), the research clearly revealed that respondents’ anxious outlooks on disaster were often informed and energised (in nuanced ways) by news and warnings elsewhere linked to wider disaster concerns in the collective American psyche. Frequently inspired (and re-emboldened) to prepare by media coverage of disaster, with their anxieties also being reaffirmed by ongoing reporting, it was evident that respondents’ prepping was sustained by exposure to disaster in the American mainstream media – and that prepping is thus a phenomenon of interest to debates about the communication of disaster risks, and the lingering and broad presence of disaster-related concerns in the contemporary United States.

## **Concluding Remarks**

This article has drawn on ethnography to analyse American prepping. In doing so, it has revealed prepping to be underpinned by anxieties around numerous disaster risks, with roots in its practitioners’ consumption of mainstream media communications. It has thus rebutted prevailing, unsubstantiated views of prepping as an apocalyptic phenomenon distanced from America’s cultural mainstream. In contrast to these established understandings, I have indicated that prepping can be understood (at least in part) as a product of messaging and fears around disaster risks in a wider cultural script. As a result, this discussion indicates that prepping is a phenomenon of interest to broad debates concerning mediated communications around risk. Although the limited scope of this ethnography means generalisations must be tentative – and future work in this area would be of clear value – the research

suggests that prepping is a previously unrecognised example of the ways prominent communications can inflate risk perceptions and activate risk-related behaviours among their recipients.

Nevertheless, it is worth re-clarifying here that this article has offered less than a full theorisation of preppers' anxieties and activities. A *comprehensive* explanation of prepping would ultimately require a multi-layered account extending beyond the themes addressed here. Unanswered questions thus remain, including: *Why is it that some Americans 'prep', while others do not? Why is it that prepping thrives in America unlike any other nation, when mainstream disaster-risk concern has been identified throughout the Western world more generally?* In regards to such matters, further interrogation of the social and cultural specificities around prepping is evidently required. Meanwhile, other dimensions of prepping's attractions remain unexplored. This includes the ways that preppers' explorations of self-sufficiency can become enjoyable – irrespective of a disaster's occurrence – as a means to widen their sense of personal autonomy and self-determination. It is thus clear that prepping remains a broadly interesting social phenomenon in *numerous* regards; while this article has explored some of its curious features, others remain ripe for investigation in the future.

Beyond this, the reader may have noted that the theoretical exposition offered here does not veer into discussions of “deeper” causes of prepping – perhaps most notably, considering its argument, it has not engaged with theories of news media production. Several works on America's ‘culture of fear’ referenced in this discussion have, themselves, attempted to develop such a deeper explanatory narrative. Glassner (2010) argues that popular disaster concerns have been amplified by news makers and politicians seeking economic and political capital from public trepidation, while Altheide (2017) contends that post-9/11 fears of terrorism have been tied to political efforts aimed at social control. This article has avoided engaging with such arguments, principally because prepping clearly responds to a *diversity* of risk concerns that are not readily condensed into one such explanation. While aspects of preppers' multi-dimensional trepidation, including their concerns with terrorist attacks, could feasibly be accounted for using Altheide or Glassner's theses, an attempt here to theorise preppers' anxieties (as a whole) within a unified perspective would likely result in an oversimplification of this

phenomenon, or a misleading discussion of some parts of prepping over others, and has thus been avoided.

Nevertheless, further research and discussion along any of these themes is to be encouraged. Earlier parts of the article demonstrated that literature around prepping is limited. While this work has taken a step towards a more accurate understanding this phenomenon more will be required in this endeavour. Research engaging with larger numbers of preppers, and an increased range of themes, will be required to develop a more robust and general account of prepping. It is therefore hoped that the article represents a starting point, that this work will be sustained, and that a rounded understanding of this phenomenon can continue to emerge.

## **Acknowledgements**

This research was funded by a SSPSSR Graduate Teaching Assistantship and 2014 Ian and Christine Bolt Scholarship at the University of Kent – the work would not have been possible without the generosity of the donors for these funds. I thank all the participants for their valuable time, energy, and insights, and Adam Burgess and Keith Hayward for their perceptive and encouraging comments. I would also like to thank the reviewers of this article for their insightful and constructive comments.

## **Note**

<sup>1</sup> As Durodié (2011: 512) notes, however, it is likewise important to consider the *cumulative* impact of prior events in any assessment of present day risk concerns, given that emergencies do not only concern ‘the events, actions and communications of that moment’, but also ‘draw together, in concentrated form, the legacies of past events, actions and communications’. In regards to disease, then, recent concerns about Ebola are likely to have also been affected somewhat by responses to prior risks – including the precautionary messaging adopted by the World Health Organisation around

SARS and H1N1 viruses, which encouraged vigilance and action among global populations and arguably set the stage for fears later fears of possible pandemics (see Durodié, 2011).

## References

- Ali Z.S. (2013). 'Media myths and realities in natural disasters', *European Journal of Business and Social Sciences*, 2(1), pp.125-133.
- Altheide, D.L. (2017). *Terrorism and the Politics of Fear*. Oxford: AltaMira Press.
- Aradau, C. and van Munster, R. (2007). 'Governing Terrorism Through Risk: Taking Precautions, (un)Knowing the Future', *European Journal of International Relations*, 13(1), pp.89-115.
- Atkeson, L. R., and Maestas, C. D. (2012). *Catastrophic Politics*. Cambridge: Cambridge University Press.
- Barabas, J. and Jerit, J. (2009). 'Estimating the Causal Effects of Media Coverage on Policy Specific Knowledge', *American Journal of Political Science*, 53(1), pp.73–89.
- Beck, U. (2009). *World at Risk* (trans. C. Cronin). Cambridge: Polity Press.
- Bourke, J. (2005). *Fear: a Cultural History*. London: Virago Press.
- Chapman University (2017). *The Chapman University Survey on American Fears* [Internet Site] Available < <https://www.chapman.edu/wilkinson/research-centers/babbie-center/survey-american-fears.aspx> > Accessed 4/11/2017.
- Christian, T. A. (2016). 'The Recuperation of Wounded Hegemonic Masculinity on Doomsday Preppers' in L. A. Clark, A. Firestone, and M.F. Pharr (eds), *The Last Midnight Essays on Apocalyptic Narratives in Millennial Media*. Jefferson NC: McFarland & Company, Inc., Publishers.
- Coppola, D.P. (2005). "'Gripped by fear": Public risk (mis)perception and the Washington, DC sniper', *Disaster Prevention and Management*, 14(1), pp.32-54.
- Davis, T.C. (2007). *Stages of Emergency: Cold War Nuclear Civil Defense*. Durham, NC: Duke University Press.
- Debrix, F. (2001). 'Cyberterror and media-induced fears: The production of emergency culture', *Strategies*, 14(1), pp.149-168.
- Durodié, B. (2011). 'H1N1 – the social costs of élite confusion', *Journal of Risk Research*, 14(5), pp.511–518.

- Espinola, M., Shultz, J.M., Espinel, Z., Althouse, B.M., Cooper, J.L., Baingana, F., Marcelin, L.H., Cela, T., Towers, S., Mazurik, L., Greene, M.C., Beck, A., Fredrickson, M., McLean, A. and Reckemmer, A. (2016). 'Fear-related behaviors in situations of mass threat', *Disaster Health*, 3(4), pp.102–111.
- Ewald, F. (2010). 'The Return of Descartes's Malicious Demon: An Outline of a Philosophy of Precaution' (trans. S. Ultz) in T. Baker and J. Simon (eds), *Embracing Risk: The Changing Culture of Insurance and Responsibility*. London: University of Chicago Press.
- Foster, G.A. (2014). *Hoarders, Doomsday Preppers, and the Culture of the Apocalypse*. New York: Palgrave Macmillan.
- Foster, G.A. (2016). 'Consuming the Apocalypse, Marketing Bunker Materiality', *Quarterly Review of Film and Video*, 33(4), pp.285-302.
- Fox29 (2016). *A visit with the preppers next door* [Internet Site] Available < <http://www.fox29.com/news/222069923-story> > Accessed 10/7/2017.
- Furedi, F. (2006). *Culture of Fear Revisited: Risk-taking and the Morality of Low Expectations*. London: Continuum.
- Furedi, F. (2016). 'Moral Panic and Reading: Early Elite Anxieties About the Media Effect', *Cultural Sociology*, 10(4), pp.523-537.
- Gallup (2017). *Terrorism* [Internet Site] Available < <http://news.gallup.com/poll/4909/terrorism-united-states.aspx> > Accessed 4/11/2017.
- Geertz, C. (1973). *The Interpretation of Cultures*. London: Hutchinson.
- Gesser-Edelsburg, A. and Shir-Raz, Y. (2017) 'Science vs. fear: the Ebola quarantine debate as a case study that reveals how the public perceives risk', *Journal of Risk Research*, 20(5), pp.611-633.
- Giddens, A. (1999). *Runaway World: How Globalisation is Reshaping our Lives, New Edition*. London: Profile Books.
- Gillham, B. (2005). *Research Interviewing: The Range of Techniques*. Maidenhead: Open University Press.
- Glassner, B. (2010). *The Culture of Fear; Why Americans Are Afraid Of The Wrong Things, Tenth Anniversary Edition*. New York: Basic Books.
- Gonsalves, G. and Staley, P. (2014). 'Panic, Paranoia, and Public Health – The AIDS Epidemic's Lessons for Ebola', *New England Journal of Medicine*, 371(25), pp.2348–2349.
- Hall, S. (2012). *Theorizing Crime and Deviance: A New Perspective*. London: Sage.



- Hammersley, M., and Atkinson, P. (2007). *Ethnography: principles in practice, Third Edition*. Abingdon, Routledge.
- Hofstadter, R. (2008 [1965]). *The Paranoid Style in American Politics*. New York: Vintage Books.
- Houston, J.B., Pfefferbaum, B.J. and Rosenholtz, C.E. (2012). 'Disaster news: framing and frame changing in coverage of major U.S. natural disasters, 2000–2010', *Journalism and Mass Communication Quarterly*, 89(4), pp. 606-623.
- Huddleston, C. (2016). "'Prepper" as Resilient Citizen: Understanding Vulnerability and Fostering Resilience' in M. Companion and M.S. Chaiken (eds), *Responses to Disasters and Climate Change*. Boca Raton: CRC Press.
- Izard, R. S. and Perkins. J. (2011). 'In the Wake of Disaster: Lessons Learned' in R. S. Izard and J. Perkins (eds), *In Lessons from Ground Zero: Media Response to Terror*. New Brunswick, NJ: Transaction Publishers.
- Jha, S. and Izard, R.S. (2011). 'Sources: No Time for the Rolodex' in R. S. Izard and J. Perkins (eds), *Lessons from Ground Zero: Media Response to Terror*. New Brunswick, NJ: Transaction Publishers.
- Kabel, A. and Chmidling, C. (2014). 'Disaster Prepper: Health, Identity, and American Survivalist Culture', *Human Organization*, 73(3), pp.258-266.
- Kasperson, R. and Kasperson, J. (1996). 'The Social Amplification and Attenuation of Risk', *Annals of the American Academy of Political and Social Science*, 545(1), pp.116–25.
- Kasperson, R.E., Renn, O., Slovic, P., Brown, H.S., Emel, J., Goble, R., Kasperson, J.X. and Ratick, S. (1988). 'The Social Amplification of Risk: A Conceptual Framework', *Risk Analysis*, 8, pp.177–187.
- Kelly, C.R. (2016). 'The man-pocalypse: Doomsday Preppers and the rituals of apocalyptic manhood', *Text and Performance Quarterly*, 36(2-3), pp.95-114.
- Kitzinger, J and Reilly, J. (1997). 'The rise and fall of risk reporting: media coverage of human genetics research, 'False Memory Syndrome', and 'Mad Cow Disease'', *European Journal of Communication*, 12, pp.319–50.
- Lawson, K. (2017). *Why Survivalist Preppers Make the Best Spouses* [Internet Site] Available < <http://www.brides.com/story/why-survivalist-preppers-make-the-best-spouses> > Accessed 6/7/2017.
- Lawson, S., Yu, H., Yeo, S.K. and Greene, E. (2016). 'The Cyber-Doom Effect: The Impact of Fear Appeals in the US Cyber Security Debate', *8th International Conference on Cyber Conflict* [Internet Source] Available < [https://ccdcoe.org/cycon/2016/proceedings/05\\_lawson.pdf](https://ccdcoe.org/cycon/2016/proceedings/05_lawson.pdf) > Accessed 12/6/2017.

- Martin, A. (2012). *Hurricane Sandy and the Disaster-Preparedness Economy* [Internet Source] Available < <http://www.nytimes.com/2012/11/11/business/hurricane-sandy-and-the-disaster-preparedness-economy.html> > Accessed 10/1/2014.
- Murdock, G., Petts, J. and Horlick-Jones, T. (2003). 'After amplification: rethinking the role of the media in risk communication' in N. Pidgeon, R.E. Kasperson, and P. Slovic P (eds), *The social Amplification of Risk*. Cambridge: Cambridge University Press.
- Murphy, T. (2013) *Preppers Are Getting Ready for the Barackalypse* [Internet Site] Available < <http://www.motherjones.com/politics/2012/11/preppers-survivalist-doomsday-obama> > Accessed 31/12/2014.
- Mythen, G. and Walklate, S. (2006). 'Communicating the terrorist risk: Harnessing a culture of fear?', *Crime Media Culture*, 2(1), pp.123-142.
- Mythen, G. and Walklate, S. (2008). 'Terrorism, Risk and International Security: The Perils of Asking 'What If?''', *Security Dialogue*, 39(1), pp.221-242.
- Ogg, J.C. (2013). *Industries Making the Most Money on Doomsday Preppers* [Internet Site] Available < <https://finance.yahoo.com/news/industries-making-most-money-doomsday-103557775.html> > Accessed 6/9/2017.
- Perry, R. W. (2006). 'What is a Disaster?' in H. Rodriguez, E. L. Quarantelli, and R. R. Dynes (eds), *Handbook of Disaster Research*. New York: Springer.
- Pidgeon N., Kasperson, R.E. and Slovic, P. (2003). *The Social Amplification of Risk*. Cambridge: Cambridge University Press.
- Rausch, A.S. (2013). 'The regional newspaper in post-disaster coverage: trends and frames of the great East Japan Disaster, 2011', *Keio Communication Review*, 35, pp.35-50.
- Reinhardt, G.Y. (2017). 'Imagining worse than reality: comparing beliefs and intentions between disaster evacuees and survey respondents', *Journal of Risk Research*, 20(2), pp.169-194.
- Robson, C. (2000). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers, Second Edition*. Oxford: Blackwell.
- Shultz, J.M., Althouse, B.M., Baingana, F., Cooper, J.L., Espinola, M., Greene, M.C., Espinel, Z., McCoy, C.B., Mazurik, L. and Rechkemmer, A. (2016). 'Fear factor: The Unseen Perils of the Ebola outbreak', *Bulletin of the Atomic Scientists*, 72(5), pp.304-310.

- Silverman, D. (2000). *Doing Qualitative Research: A Practical Handbook, Fourth Edition*. London: Sage.
- Slovic P. (2000). *The Perception of Risk*. London: Earthscan Publications.
- Towers, S., Afzal, S., Bernal, G., Bliss, N., Brown, S., Espinoza, B., Jackson, J., Judson-Garcia, J., Khan, M., Lin, M., Mamada, R., Moreno, V.M., Nazari, F., Okuneye, K., Ross, M.L., Rodriguez, C., Medlock, J., Ebert, D. and Castillo-Chavez, C. (2015). 'Mass media and the contagion of fear: the case of Ebola in America', *PLOS One*, 10(6).
- Vasterman P. (2005). 'Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems' in *European Journal of Communication*, 20(4), pp.508-530.
- Vasterman, P., Yzermans, C.J. and Dirkzwager, A.J.E. (2005). 'The role of the media and media hypes in the aftermath of disasters', *Epidemiologic Review*, 27, pp.107-114.
- Wahlberg, A.A.F. and Sjoberg, L. (2000). 'Risk perception and the media', *Journal of Risk Research*, 3(1), pp.31-50.
- Warchol, G. (2014). *Zombies. Nuclear War. Earthquake. Pandemic*. [Internet Site] Available < <http://saltlakemagazine.com/blog/2014/01/03/zombies-nuclear-war-earthquake-pandemic/> > Accessed 10/1/2014.
- Webb, G.R. (2006). 'The Popular Culture of Disaster: Exploring a New Dimension of Disaster Research' in H. Rodriguez, E. L. Quarantelli, and R. R. Dynes (eds), *Handbook of Disaster Research*. New York: Springer.
- Wenger, D. and Friedman, B. (1986). 'Local and national media coverage of disaster: a content analysis of print media's treatment of disaster myths', *International Journal of Mass Emergencies and Disasters*, 4(3), pp.27-50.
- Wuthnow, R. (2010). *Be Very Afraid: The Cultural Response to Terror, Pandemics, Environmental Devastation, Nuclear Annihilation, and Other Threats*. Oxford: Oxford University Press.
- Wyatt, H.W. (2000). 'The role and responsibility of the media in the event of a bioterrorist act', *Journal of Public Health Management Practice*, 6, pp.63-67.
-