

Chapter 2

Conceptualizations of Disasters in Philosophy



Per Sandin

Abstract This chapter provides an overview of how disasters have been conceived of in philosophy, starting with Plato, with focus on the analytic tradition. Philosophers have been surprisingly little concerned with disasters. Some works where philosophers, and some non-philosophers, explicitly define disasters are surveyed and discussed. Works by philosophers who have discussed philosophical issues pertaining to disasters and disaster-like situations without offering much discussion of the definition of the term are also treated. Those have mainly been ethicists, normative as well as applied, and political philosophers dealing with the Hobbesian tradition's problems of state authority and exceptions. The use of imagined disasters in philosophical thought experiments, typically in ethics, is also discussed. The chapter concludes by offering tentative suggestions of some possible future developments in disaster philosophizing. Among them are that we might expect philosophers to devote increased attention to empirical work, for instance from behavioural science, and increased exploration of the intersection between disaster philosophizing and environmental ethics.

Keywords Threshold deontology · Hobbes · Disaster · Ethics · Emergencies · Philosophy

2.1 Introduction

How have philosophers defined and conceptualized disasters? The short answer is: surprisingly little. They have hardly defined it explicitly, and they have provided implicit definitions pretty much like everyone else who has attempted it; that is, they have defined it in ways that suit their own purposes. That is the short answer, and of course it is too short. In what follows I will present a slightly longer one.

P. Sandin (✉)

Department of Crop Production Ecology, Swedish University of Agricultural Sciences,
Uppsala, Sweden

e-mail: per.sandin@slu.se

Approaching the question of conceptualization of disasters in philosophy requires an idea of what philosophy is. Does the term refer to the activities carried out by people working from within academic philosophy departments? That characterization would be unsatisfactory, since it would leave out very significant parts of the historical philosophical canon—there were no philosophy departments in antiquity, for instance. And a lot of what is regarded as philosophy today would not fit the bill either. For instance, important contributions to political philosophy have come from political scientists or people working in government departments, and theologians have made important contributions to ethics. A more plausible characterization would be to say that ‘philosophy’ refers to a set of topics, including but not limited to ethics (including political philosophy), epistemology (including logic), and metaphysics, all very broadly conceived. Philosophy in this sense is about searching for answers to the questions—and I am paraphrasing Kant here—‘What is there? What can we know? What ought we to do?’ I take this to be a rather conventional characterization and will employ it in the present paper. I will, however, emphasize contributors who are identified by themselves and others as philosophers. The reason for this is simply that conceptualizations of disasters in other fields have been examined by others, who are no doubt more knowledgeable about those fields than I am.

In this paper I attempt to give an overview of how disasters have been conceived of in philosophy. My focus will be on the analytic tradition. I will summarize and discuss some works where philosophers have explicitly engaged in defining disasters, and devote some more space to philosophers who have discussed philosophical issues pertaining to disasters and disaster-like situations without so much discussion of the definition of the term. Those have mainly been ethicists, normative as well as applied, and political philosophers. I also highlight how imagined disasters have been employed in philosophical thought experiments. I conclude by sketching some possible future developments.

2.2 Defining Disaster

To begin with, there is at least one non-philosopher whose efforts must be mentioned: E.L. Quarantelli. There are at least two reasons for this. First, Quarantelli has an analytic philosophical approach to the definitional issue, and his work is an eminent example of Carnap’s idea of explication, ‘the transformation of an inexact, prescientific concept, the *explicandum*, into a new exact concept, the *explicatum*’ (Carnap 1950, 3). Second, philosophers discussing disasters refer to Quarantelli (Voice 2016; Zack 2009). In his introduction to the seminal volume *What is a Disaster?* Quarantelli recounts how he asked a number of scholars to ‘put together a statement on how they thought the term “disaster” should be conceptualized *for social science research purposes*’ (Quarantelli 1998, 2). The emphasis is in the original and it is important. Quarantelli continues by saying that while ‘[a] minimum rough consensus on the central referent of the term “disaster” is necessary’, he emphasizes that at the same time ‘for legal, operational, and different organizational

purposes, there is a need for and there will always continue to be different definitions/conceptions' (Quarantelli 1998, 3). However, he also argues that 'for *research* purposes aimed at developing a theoretical superstructure for the field, we need greater clarity and relative consensus' (Quarantelli 1998, 3, emphasis in original).

Despite the surprising scantiness of academic philosophical discussions of the topic, disaster—or the potential of disaster—has been a looming presence in Western philosophy since its early days. For instance in the *Timaeus* and *Critias*, Plato recounts the myth of Atlantis where disaster befalls the once-mighty kingdom:

But at a later time there occurred portentous earthquakes and floods, and one grievous day and night befell them, when the whole body of your warriors was swallowed up by the earth, and the island of Atlantis in like manner was swallowed up by the sea and vanished; wherefore also the ocean at that spot has now become impassable and unsearchable, being blocked up by the shoal mud which the island created as it settled down (Plato 1925, 25c–25d)

Similar eschatological myths prevail over the millennia in Christianity as well as in other religious traditions. A pivotal point in this development, and one which perhaps marks the beginnings of modern philosophical engagement with disasters, is the Lisbon earthquake of 1755. It struck in the morning of November 1st, at a time when many of the city's inhabitants were attending mass. The city centre, where the nobility dwelled, was particularly badly damaged (Dynes 2000).

The Lisbon earthquake figures in the interchange between Rousseau and Voltaire (Cassidy 2005). Philosophically, the occurrence of the disaster prompted Voltaire's questioning of the optimistic world view of Leibniz, Pope and others (Dynes 2000), a view Voltaire subsequently ridiculed in *Candide*. Rousseau replied and the ensuing discussion concerned Providence and God's place (if any) in a world containing evil, or at least apparent evil. The theodicy is apparently still discussed in the context of disasters, e.g. volcanic eruptions (Chester 2005).

However, Rousseau's reply is also interesting from a more secular point of view for several reasons. One is that it points to a conceptualization of disasters that recognizes that 'natural' disasters do not strike blindly—the way buildings are located and constructed affects the outcome, as do to some extent the actions of the victims (if they postpone evacuation in order to collect their belongings or not, for instance; Cassidy 2005, p. 9). The Lisbon earthquake was also the first disaster that occurred in a nascent modern nation-state, and it was 'the first disaster in which the state accepted the responsibility for mobilizing the emergency response and for developing and implementing a collective effort for reconstruction' (Dynes 2000, 112). The Lisbon earthquake thus in more than one respect can be said to have been the first modern disaster.

2.3 Disaster Conceptualizations in Philosophy

In a recent paper, Paul Voice (2016) offers a relevant categorization of areas where philosophers might be concerned with disasters. First, there is a set of metaphysical and, in some cases, theological issues. This is what concerned Rousseau and Voltaire in the wake of the Lisbon earthquake, and it would be expected that here is where you

could find statements at least purporting to be the true answer to Quarantelli's question 'what is a disaster?' Second, there is the ethical approach, which is concerned mainly with individuals and their actions. Here belong also applied ethical issues such as responsibilities of health care workers in disaster situations, questions of triage, and so on. Third, there is the political-philosophical perspective, which is concerned primarily with institutions rather than individuals, with questions such as what coercive measures the state is justified in taking in a post-disaster situation. In this category we will find the heritage from Hobbes and also materials from discussions about just wars and warlike situations (Sandin 2009a). However helpful, it appears that at least one field of philosophy that could and arguably should be concerned with disasters is missing from Voice's categorization: epistemology, and its close relative, philosophy of science. In fact, the discussion of some of the issues treated in Quarantelli's (1998) volume would likely benefit from such approaches, and indeed some of the authors in that volume touch upon them, for instance Dombrowsky (1998). Oliver-Smith (1998) uses another standard item from the toolbox of analytical philosophy, W.B. Gallie's notion of essentially contested concepts.

Voice discusses some existing definitions of disasters, for instance those of the US Federal Emergency Management Agency (FEMA), and some more academic authors like Quarantelli, Donald W. Perry, and Naomi Zack. He notes that they typically emphasize harm and breakdown of life in a community. Since these criteria are not unique to disasters, the amount of harm is what sets disasters aside from non-disastrous events involving harm. '[A] high degree of harm often (but not always) in a spatially confined place and in a brief period of time combine as rules of thumb for identifying a disastrous event' (Voice 2016, 397). He points out that such a 'definition' hinges on others and that there are demarcation problems, for instance how much harm is required in order for the disaster label to be applied, and so on. Voice argues that '[m]ore academic definitions of disasters are mostly constructed from a sociological perspective' (Voice 2016, 397), referring to the Quarantelli tradition.

Voice's own definition is that a disaster is 'an event that destroys or disables the institutions required for moral agency and effective citizenship' (Voice 2016, 399). He argues that a disaster is something more than aggregated individual harm and that it is not necessary that anyone be actually physically harmed for a disaster to occur, nor does any property have to be damaged, 'although nearly all disasters are violent events of some kind' (Voice 2016, 399). It is not entirely easy to envisage what such a non-violent disaster would be, and Voice does not provide examples. Perhaps a breakdown of communication systems might fit such a definition? However, it would perhaps be more natural to say that such a situation is a crisis, which might result in a disaster (if harm occurs). Voice however emphasizes that disasters in this sense need not be sudden, but that 'the slow erosion of dignity and citizenship in a case like Zimbabwe is a disaster' too (Voice 2016, 399). Voice's position implies that states owe disaster victims not only emergency relief, but also longer-term rebuilding, for instance provision of schools and other things required to restore citizen capacities. However, the state does not owe the victims to restore the level of well-being that they had before disaster struck.

Another of the few philosophers who have treated disasters at any length is Naomi Zack, in her 2009 book, *Ethics for Disaster*. She clearly recognizes that the very term ‘disaster’ carries normative implications. ‘To call an event a “disaster” is to signal that it is worthy of immediate, serious human attention and purposive corrective activity’ (Zack 2009, 7). However, the definition of disaster she presents contains elements that point in different directions.

She contrasts her approach to the one of ‘disaster-research specialists’ represented in the Quarantelli volume and writes that as an ethicist, amateur observer, and potential disaster victim, her job is ‘after the fact’, paying attention to ‘disruptive events that will have already been designated “disasters”’ (Zack 2009, 7). She defines a disaster as

...an event (or series of events) that harms or kills a significant number of people or otherwise severely impairs or interrupts their daily lives in civil society. Disasters may be natural or the result of accidental or deliberate human action. (Zack 2009, 7)

She goes on to enumerate a number of examples including earthquakes, floods, pandemics, and, notably, terrorist attacks, and ‘other events that officials and experts designate “disasters”’ (ibid). She also writes that

Disasters always occasion surprise and shock; they are unwanted by those affected by them, although not always unpredictable. Disasters also generate narratives and media representations of the heroism, failures, and losses of those who are affected and respond. (Zack 2009, 7)

It might appear that Zack’s definition is a purely lexical one, describing actual use of the term among a particular group of language users, in this case disaster researchers and officials. It is unclear what she takes to be defining characteristics of disasters and characteristics that are accidental but typical. She also includes terrorist acts, but explicitly excludes war. The reasons for this appear to be twofold. First, the insight among crisis researchers that disasters typically generate prosocial behavior rather than the opposite, while this is not the case for conflict situations, i.e. war. Secondly, wars ‘are structured’, according to Zack. Even though the effects of war might be disasters from the point of view of civilians, from the point of view of the military, wars ‘have deliberate agency, systematic planning, and the active involvement of legitimate government, all of which distinguish them from disasters’ (Zack 2009, 7.) However, it is not difficult to see that at least the first two of these characteristics apply also to acts of terrorism. Zack’s definition offers very little in the way of clarification.

2.3.1 Ethics and Political Philosophy

Zack is an ethicist, and applied ethics is a field where considerable philosophical work involving disasters has been carried out, and even in cases where no explicit definitions of disasters are given, the discussions nevertheless involve conceptual choices that are of importance for the understanding of how disasters might be

conceived of. This is particularly the case within the sub-field of medical ethics. (Here the question of whether philosophy is defined by its topics or by its disciplinary home recurs. Medical ethics is a field spanning several disciplines, in addition to academic philosophy.) Arguments from medical ethics have also been transferred to other professions with obvious roles in disasters, such as fire and rescue personnel (Sandin 2009b).

Arguably, the most disaster-relevant contribution from medical ethics is the idea of *triage*. Triage involves sorting and prioritizing between victims in emergency situations. Who should receive treatment first, who must wait, and who, if any, is beyond rescue? In what can be labelled the classic work on triage, Gerald R. Winslow distinguishes between *utilitarian* and *egalitarian* triage principles, and discusses five utilitarian and five egalitarian principles for triage. His starting point, however, is the following observation:

The principle [of doing the greatest good for the greatest number] obviously has a strong intuitive appeal in triage situations. [...] Moreover, appealing to the utilitarian principle receives hefty support from the prevailing moral spirit of the age. One or another brand of utilitarianism has tended to dominate moral thought in modern times. (Winslow 1982, 22)

It is questionable whether ‘the moral spirit of the age’ is utilitarian, and indeed whether it was when Winslow wrote in the early 1980s. However, he is entirely right that the idea of the greatest good for the greatest number is the default approach in disaster medical ethics generally (cf. Zack 2009, Chap. 1). Anecdotally, many conversations I have had with rescue professionals indicate that if you propose any other triage principle than the utilitarian one of saving the greatest number, they will look at you with disbelief. And according to James F. Childress, all systems of triage have a utilitarian rationale, whether explicit or implicit (Childress 2003). There is, however, some opposition to this claim. For instance, Baker and Strosberg (1992, 103) argue that ‘the logic of triage is not primitive utilitarianism, but theoretically sophisticated egalitarianism’. And Winslow himself offers a triage rationale claiming that Rawlsian rational contract agents, deciding behind a veil of ignorance, would opt for the principle of *usefulness under the immediate circumstances*. According to this principle, priority should be given to those individuals who are likely to be most useful in the immediate circumstances, such as nurses and paramedics. He takes this principle to be similar to Rawls’ difference principle. It is important, Winslow claims, ‘to distinguish the contract justification for the difference principle, which has been identified here with the principle of immediate usefulness, from a basically utilitarian rationale’ (Winslow 1982, 153). Winslow admits that a straightforward utilitarian approach and the difference principle may recommend strategies that are identical, but holds that they nevertheless ‘clearly exemplify different perspectives’ (Winslow 1982, 153).

Kenneth Kipnis (2013), working within medical ethics, introduces a scalar taxonomy of calamities. Kipnis offers narrow, or domain-specific, characterizations of the concepts of disasters and catastrophes. They concern the healthcare system, not society in general. (It is not uncommon that when philosophers discuss disasters, they are actually not treating disasters in general, but rather some particular instance

of disaster, but Kipnis is explicit about this.) His taxonomy has four levels in addition to Level 0, ordinary clinical practice. Those levels are characterized based on (i) what resources are likely to be insufficient and (ii) what the appropriate response by the healthcare system would be. They are (1) local patient surges and staff shortages, requiring diversion of patients to other facilities, (2) disasters—where triage applies, (3) Physical and Medical Catastrophes, where a healthcare system collapses, and (4) Mega-Pandemics, requiring planning ahead for measures such as social distancing, i.e. large-scale isolation of people in order to prevent the disease from spreading. They are also in part geographical. Thus, he writes, a disaster in his terminology is ‘a large-scale disruptor that creates a burden of patient need that exceeds the *region’s* clinical carrying capacity (Kipnis 2013, 299, emphasis added), and “catastrophe” refers narrowly to the collapse of a previously functional healthcare institution’ (Kipnis 2013, 301).

In these discussions, two issues stand out: First, does consideration of ethics ‘scale up’ to politics? Second, are the considerations from one type of mass casualty situation generalizable to other situations?

The problem of generalizability applies to natural disasters versus conflict situations, i.e. war. Let us begin with the latter question, which is a central one and which involves a dividing line between philosophers who conceive of disasters as like war, in relevant aspects, and those who do not.

Examples of arguments by philosophers in the first category are ones related to disease control: Can self-defence justify compulsory disease-control measures that restrict individuals’ liberty? So has sometimes been thought. Wilkinson (2007) discusses such arguments. (Protective but liberty-infringing disease control measures might be quarantine, isolation, screening of airline passengers for fever, travel restrictions, compulsory prophylaxis, and various social distancing measures.) Wilkinson argues for the justifiability of such public health compulsion in cases when it involves the state acting as a third-party defender of individuals’ rights. He also recognizes limits to the justificatory force. There are plenty of historical examples of draconian measures in times of contagious disease. Ngalamulume (2004) writes about forced removals and enforcement of sanitation rules by means of draconian punishment in late nineteenth and early twentieth century colonial Senegal. Kallioinen (2006) discusses measures to combat plagues in medieval and early modern Finland (then part of the Swedish realm). Kallioinen points out how disease prevention and enforcement of preventative measures also serve to strengthen and legitimize government authority:

The actions of the authorities had, besides the prevention of plague, another dimension, too. Although the purpose of the public actions was to stop outbreaks, behind them there was a more or less unconscious aim to make the subjects more disciplined to the authorities’ power. (Kallioinen 2006, 45)

Interestingly, General Ehrensvärd who was in charge of ordering the harsh disease control measures during the 1770 plague gave an explicitly utilitarian justification of those measures: ‘in similar situations this takes place everywhere in the

world, because there is no other solution, and a single life cannot be compared with the lives of thousands' (cited in Kallioinen 2006, 44).

In this sense, disasters and similar events do the political-philosophical work of providing justification for government authority in general or for extraordinary measures.¹ This is of course the thrust of Hobbes' arguments, and we might refer to this approach as the *Hobbesian tradition*.

A recent discussion in the *Journal of Medical Ethics* illustrates how some applied ethics issues of disasters might have implications for normative ethics. In the feature article of the discussion, Kodama (2015) argues for *tsunami-tendenko*—a rule taught to school children, that when a tsunami hits, everyone should run for safety without wasting time on attempting to help others.² (Kodama's offered justification for *tsunami-tendenko* is straightforwardly rule-consequentialist.) Here, the basic insight is that everyday morality might not work in extreme situations. 'Ordinary moral rules and virtues can be found seriously inadequate in circumstances where natural catastrophes afflict large numbers of people,' writes Justin Oakley (2015).

Also in more theoretical discussions, the idea that rule-consequentialism might have a place in disaster ethics is prominent. Rule-consequentialism basically amounts to the idea that an action is right if it is in accordance with a rule that would lead to the best outcome if the rule were accepted by everyone. However, some actions or omissions might lead to disastrous outcomes. Discussing rule-consequentialism, Leonard Kahn (2013) argues that every ethical theory needs to contain some sort of 'disaster clause'. It is interesting that Kahn shuns real disasters, instead preferring a thought experiment involving a demon who will torture everyone in London unless a person tells a lie to another person (Kahn 2013, 222). His reason for doing so is that 'more realistic thought experiments of this sort are possible, but they require much more qualification and take up considerably more room as a result' (Kahn 2013, 222n).

An idea related to rule-consequentialism, and based on the same insights, is *threshold deontology*. Threshold deontologists maintain the view that 'when consequences become extremely grave, what would otherwise be categorically forbidden becomes morally possible' (Hurd 2002, 405). Heidi M. Hurd distinguishes between two versions of threshold deontology. The first is the gappy version. According to this version, once the threshold is crossed, morality ends. Beyond the threshold, anything goes, and someone's actions cannot be morally evaluated at all—this is the 'gap'. Hurd describes this position as saying "all is fair in love and war" (Hurd 2002, 406). A version of this view is to be found in the *realist* position on the ethics of war. Realists hold that it is not possible to judge warlike activities morally at all. The second version of threshold deontology is the non-gappy version. According to this view, when the threshold is crossed, deontology is simply replaced by consequentialism. In this vein, Kantians have also dwelt on the problem of how adherence

¹We should of course be aware that plagues, or to use modern terms, outbreaks of infectious disease including pandemics, might be very different from disasters that are more localized in time and space (May et al. 2015).

²Comments are by Oakley (2015) and Asai (2015); see also response from Shortridge (2015).

to some moral absolute undermines the very institution of morality (Hill 1992; Korsgaard 1986). Notably, threshold deontologists have mostly been concerned with situations that involve antagonistic threats, such as acts of terrorism or war, even though some arguments might plausibly be transferred to non-antagonistic threats as well. In particular, disease control has been conceived of in terms of self-defence (Wilkinson 2007; cf. Sandin 2009a), and the potential for threshold deontology to contribute to disaster policy is occasionally recognized (Hosein 2016). Threshold deontology also immediately moves to the field of political philosophy rather than (individual) ethics.

In his recent book-length treatment of emergency, Tom Sorell (2013) approaches the topic from an explicitly Hobbesian perspective. He accepts the distinction between ‘natural disasters and emergencies arising from political disorder’ (Sorell 2013, 23).³ Sorell is aware that this distinction might overlook important aspects and that many emergency-relevant questions cut across the distinction (Sorell 2013, 23, footnote) and that other distinctions might be more important. He mentions mild versus severe emergencies, and emergencies facing weak states versus those facing strong ones. Sorell notes that Hobbes does not use the word emergency. Hobbes’ starting point is war (Sorell 2013, 29). This is significant for a lot of political philosophy dealing with exceptional situations. (For one example involving an earthquake, see La Torre 2012.)

2.3.2 *Real and Imagined Disasters*

Even though philosophers have not engaged that much with *real* disasters, there is no shortage of *imaginary* ones. Those disasters figure in thought experiments, usually in ethics (Dancy 1985). One example is the ‘Last Man’ arguments employed by Richard Routley (Sylvan) and others (Routley 2009; Peterson and Sandin 2013). Routley asks us to imagine that,

[t]he last man (or person) surviving the collapse of the world system lays about him, eliminating, as far as he can, every living thing, animal or plant (but painlessly if you like, as at the best abattoirs). (Routley 2009, 487)

His purpose is to elicit intuitions about anthropocentrism. The disaster scenario does the work of isolating certain factors that he is interested in. Sometimes these disaster scenarios are described very generally (as in Routley). Other authors are more detailed. Mary Ann Warren (1983), for instance, varies Routley’s example with a virus “developed by some unwise researcher” that has escaped from a laboratory and is about to extinguish animal, or perhaps sentient, life.

However, while common, it is well known that hypothetical, fictional examples might lead to conclusions that are misleading or have unwanted consequences in the

³This nuances an argument made by Sorell in earlier work (Sorell 2003; see also comments by Sandin and Wester 2009).

real world (Walsh 2011; Davis 2012; cf. Sandin and Wester 2009). For a potentially disaster-relevant example, Bob Brecher's (2007) critical discussion of how torture supposedly can be justified by reference to 'ticking bombs' is illuminating. The argument Brecher takes on is roughly as follows, and is likely to be familiar to most readers: Suppose that an extraordinarily capable terrorist has hidden a nuclear bomb in some metropolis. The terrorist is in custody, but of course refuses to disclose the location of the bomb, which is about to detonate shortly, killing millions. In such situations, would it not be justifiable to torture the terrorist into confessing where the bomb is hidden, assuming that we have reason to believe that the torture is effective? This is a 'lesser evil' argument. One of Brecher's points is that the scenario is based on unrealistic assumptions, and thus does not do the normative work it is supposed to be doing. 'The more closely the real case approximates to the ticking bomb scenario, the closer it is to being too late to prevent the impending catastrophe' (Brecher 2007, 38).

2.4 Conclusion and Looking Forward

In summary, philosophers—at least analytic ones—who have given thought to disasters have typically been either political philosophers dealing with the Hobbesian tradition's problems of state authority and exceptions, or ethicists. Some of those ethicists have been applied ethicists who have pondered the actions, duties and responsibilities of individuals in emergencies, of which disasters constitute a subset, along with wars and other situations. Many of them have been working in medical ethics and discussed issues pertaining to actions of medical professionals such as nurses and physicians in disasters and disaster-like situations. Others have been normative ethicists, who have reasoned around the implications of disasters for a certain normative position. Sometimes the relationship between normative theory and applied disaster ethics is unclear (Mallia 2015). If one wants to ponder what philosophers have contributed to the discussion of disasters, the term 'disaster' itself might not be the most important focal point. Other, related terms may be as relevant: for instance, 'crisis', 'calamity', and 'catastrophe'. Terminology might be confusing. For instance, writing about global catastrophic risks, including what they call 'existential' risks, Bostrom and Ćircović (2008) do not appear to distinguish between catastrophes and disasters. Perhaps most importantly, the discussions involving 'emergency' may be potentially relevant for disaster philosophizing (Sorell 2013; Walzer 2000, 2004).

So, what is there to do for philosophers? What, if anything, may they contribute to disaster conceptualization, and what are the likely areas where this might happen?

First, in recent years several philosophers have been probing the philosophy of risk (Hansson 2012). One observation in that field is that ethical theory has been

focused on situations with outcomes that are certain, while referring situations with non-certain outcomes to decision theory (Hansson 2012, 43, 2013). Disasters, however, include situations where uncertainty prevails. Compare discussions of the closely related term ‘crisis’—according to one standard view, crises are characterized by threats to basic values, urgency—and uncertainty (Stern 2003). Some of the concepts developed in this field might also be applicable to disasters, in particular since disasters often result in crises of various kinds.

Second, we can probably expect philosophers to devote increased attention to empirical work, in particular such work as regards human behavior, for instance psychology and social psychology (cf. Sandin and Wester 2009). This is in line with a general trend in contemporary philosophy: Analytic philosophers, now to a greater extent than before, are paying attention to behavioral sciences and their implications for philosophy and ethics, and this might lead to changes in disaster preparation and response.

Third, the discussion about ‘natural’ disasters and ‘man-made’ or ‘anthropogenic’ ones is likely to continue (Shaluf 2007, 705; Coeckelbergh 2016). In philosophy, the idea of the natural is as ancient as it is controversial (Soper 1995).

Fourth, and finally, in recent years, the idea of an ‘environmental apocalypse’ (due to population growth or chemical pollution) that was prominent in the 1970s but then lay dormant for decades, has resurfaced in the wake of predicted anthropogenic climate change (Skrimshire 2010). Randers and Gilding (2010) call for a ‘one degree war plan’, the first phase of which involves ‘a world war level of mobilisation to achieve a global reduction of 50 per cent in climate gas emissions within five years’ (Randers and Gilding 2010, p. 175). In the 1970s, this idea prompted a number of authors to argue that extreme emergency measures were morally justified given the perceived extremity of the situation, e.g. the ‘lifeboat ethics’ of Garrett Hardin (2015, originally published 1974). As can be seen, this is an argument closely resembling the threshold deontology discussed above. We are likely to have to relate to a number of extreme climate-related and environmental disasters in the coming decades. Thus, there is potential in the intersection between disaster philosophizing and environmental ethics—a hitherto relatively little explored area.

There are notable policy implications here. The distinction between ‘natural’ and ‘man-made’ might affect to what part of government the task of preventing, or preparing for, some disaster is given. The arguments of ‘apocalyptic’ situations might lead to calls for suspending democratic processes, and indeed have done so. When interviewed recently, Jorgen Randers, member of the Rome Club and a proponent of the ‘climate war plan’ cited above, proposes an elite rule in the interest of the common good, since democracy is too short-sighted, and mentions China as a model (Stiernstedt 2017). In times where authoritarian positions seem to be gaining ground, these types of arguments should be cause for concerns among decision makers in democratic societies.

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