



Understanding Creeping Crises: Revisiting the Puzzle

Arjen Boin, Magnus Ekengren, and Mark Rhinard

Abstract This chapter returns to the research question that animated the case studies and summarizes the findings of the chapters in this book. It offers provisional answers to our research question and formulates an agenda for future research. Much of the chapter is devoted to thinking through the implications of the creeping crisis perspective for the practitioner community. We build on our research findings to argue that the time for action is now and formulate a set of recommendations that can help jumpstart this agenda.

A. Boin (✉)

Department of Political Science, Leiden University, Leiden, The Netherlands
e-mail: boin@fsw.leidenuniv.nl

M. Ekengren

Department of Security, Strategy and Leadership, Swedish Defence University,
Stockholm, Sweden
e-mail: Magnus.Ekengren@fhs.se

M. Rhinard

Swedish Institute of International Affairs, Stockholm, Sweden
Stockholm University, Stockholm, Sweden
e-mail: mark.rhinard@ekohist.su.se

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10.1 INTRODUCTION

This book pivots around the assumption that the world is facing threats to the survival of the planet. The security and prosperity of mankind is at stake because of climate change, forced migration, terrorism, pandemics, cyber breakdowns, the erosion of privacy and growing inequality. The puzzle is simple: why are governments not prioritizing these threats and treating them as the large-scale crises that so many experts argue they are?

The book demonstrates that knowledge about causes and effects of these threats is not the real problem. The knowledge base is solid, available, and steadily growing. Experts seem to have little doubt what the facts are. Advocacy groups regularly warn of impending problems if greater action is not taken. Yet governmental efforts to prevent and manage these threats do not stand in proportion to their almost existential magnitude.

In this book, we outline a perspective that helps to explain why the discrepancy between our understanding and handling of these threats is so large. The concept of creeping crisis brings together what are really two sides of the same coin: the objective analysis of threat potential and the subjective definition and understanding of what should be considered a threat and how it can be met. We make a distinction between objective facts regarding how these threats *incubate, evolve, and signal their existence* and the subjective processes through which these threats are seen to undermine *shared societal values* and whether they are given *political and societal attention*.

This perspective has served us well in this book. It steered our empirical investigation of creeping crises in fields ranging from antimicrobial resistance (AMR) to climate change, from returning foreign fighters to energy extraction. A few intriguing insights are worth repeating here:

- Few threats seem so well-documented and so immediate as AMR (Chap. 2), but the apparent blessings of immediate cures and economic gains prevent political leaders from addressing the longer-term threat that results from this neglect.
- The WannaCry cyber crisis (Chap. 3) was waiting to happen since the U.S. National Security Agency kept secret a major vulnerability in computer operating systems. That move gave rise to a series of

interconnected developments and precursor events that led to WannaCry—with more serious attacks likely in the future.

- The study of foreign fighters (Chap. 4) suggests that the risks of radicalization and terrorist attacks will increase if they are not allowed to return home from the refugee camps where they remain in limbo.
- Climate change induces migration, but it remains hard to estimate the number of people potentially displaced. This pervasive uncertainty, along with competing agendas, paralyzes government action (Chap. 8).
- Many people may feel uneasy about the rise of Big Data, but it is not easy for governments to act forcefully if that means undermining new technologies, which many believe we depend on for future prosperity (Chap. 5).
- Deep-seated ideological debates created blind spots that prevented the Swedish government from making a realistic assessment of the 2015 migration crisis (Chap. 6).
- Respected experts in the Netherlands and Sweden, sticking with the scientific state of the art, slowed down their governments' reaction to the well-documented emerging threat that we now refer to as Covid-19 (Chap. 7)
- The marriage between commercial and political interests led to an organized effort to suppress attention for damaging earthquakes that were the result of the profitable exploitation of the Dutch natural gas fields. A national response was long avoided, despite the many precursor events of minor quakes and tremors (Chap. 9).

In each case we had no problem identifying an epistemological network of experts who seem to understand the nature and consequences of the threat that is either coming or already with us. These networks are well-established, well-funded and operate across borders. They are frequently linked to international institutions. Whether we talk about climate change, AMR, Big Data, or foreign fighters, the research done is typically world-class.

The chapters together reinforce the importance of the main puzzle animating our approach: it appears that these creeping crises are far from “unknown”—they do not belong to the category of the proverbial “Black Swan” (Taleb, 2010). These are not long-tail events that we discount because we don’t understand or don’t know about them. These are all thoroughly studied and well-documented threats that draw the constant attention of what we might call a “warning community.”

10.2 UNDERSTANDING THE PROBLEM: GENERATING ATTENTION FOR THE SEEMINGLY OBVIOUS

The key challenge, as this book makes clear, is not one of understanding. It is the challenge of generating political and societal attention that might lead to meaningful action. Experts suggest solutions, but politicians seem unconvinced that the public will support a radical shift in policy. We know from the work of policy scholars that the attention of politicians and policymakers is somewhat of a scarce commodity (scholars say that policy agendas have a limited “carrying capacity”). But policy scholars typically consider crises to be precisely those “focusing events” that should generate attention (Birkland, 2006; Kingdon, 1984).

Why is that not happening in these cases? Why do politicians and the public at large systematically ignore what appears to be written on the wall? Our case studies highlight several types of factors at play, which we briefly summarize below.

10.2.1 *The Complexity of Incubation*

There is no shortage of experts casting this or that threat into their analytical spotlight. Whether we are talking about biological processes (AMR) or technological developments (Big Data), we can find a handful experts who seem to know nearly everything about the threat at hand. But somehow, this expert knowledge does not escape from the academic confines in which that knowledge is accumulated, honed, and tested. The general public and politicians seem to have only a very rudimentary knowledge base, which does not even come close to the actual state of the art. In fact, it may well be dangerously simplified or outright wrong. It is easy to see, then, how politicians and citizens can misunderstand the real danger of a seemingly new development.

It does not help that expert assessments of a threat are often cast in the language of risk management. Experts want to be helpful: they try to estimate the likelihood of some event occurring and the damage it may cause. The chapter on the Groningen earthquakes provides an illuminating example. Experts assessed the chances of an earthquake of a certain magnitude and they then tried to predict how much damage would be likely. In making such assessments and predictions, they are held to the maxims of science. One of those maxims instructs them to be transparent about the range of uncertainty in which they operate. Predicting future events is,

by definition, a rather imprecise and uncertain endeavor. It should not surprise anyone that experts tend to be rather cautious in their predictions, which may thus fail to rally citizen or politicians toward a response. It is not that they underestimate creeping crises; they just can't say much with a high degree of certainty. So, they do not.

What makes the task even more difficult is that, regarding creeping crises, scientists are not dealing with linear processes that allow for predictions of critical thresholds. These are non-linear processes, marked by long periods of simmering and sudden punctuations or "tipping points." And these punctuations are incredibly hard to predict, as complexity scholars tell us. That's why policymakers and politicians are surprised time and again by crises that seem long in the making but suddenly explode into view.

10.2.2 *The Distraction of Precursor Events*

Creeping crises tend to produce precursor events. If understood correctly, these precursor events are treated like dire warnings of impending doom. They would be the canary in the coal mine, a signal that things are about to fall apart. But in many cases, these precursor events are classified as minor incidents that can be easily managed. They are treated in isolation from the undercurrent that produces the incident. The focus is on the immediate cause, not the systemic processes that give rise to that cause. AMR, for instance, is often analyzed as a series of unfortunate incidents in impoverished countries, not as an accumulation of multiple dynamics that may cause global mayhem. People on the run from war are treated as unwanted refugees, not as an indicator of sweeping climate change.

Precursor events tend to be manageable (as they are mere incidents). But their manageability provides cover for the underlying crisis. As the incident is managed, the attention for the incident disappears. We might say that the incident absorbs all the attention, providing a false sense of closure. It is like the "near miss" at a busy airport: quickly and thoroughly investigated, but soon forgotten. Immediate causes will be addressed (the inattentive controller) but the real story—too many planes using the airport—disappears from view.

There is an unrecognized force that prevents us from seeing the connection between precursor event and the underlying crisis development. We may refer to this as the *dynamics of impatience*. In modern society, we are all in a rush to move on after an incident has caused a snag in the

fast-flowing processes that facilitate if not propel our endless haste. The relentless pursuit of efficiency cannot be interrupted by deep exploration of underlying forces. We have lost the patience to interrogate an incident and divine its causes and drivers. A precursor event is yesterday's news before we know what actually happened.

In other cases, the response to a precursor event comes rapidly and forcefully but ends up fueling the underlying crisis. This happens when the response to a precursor event is considered a failure. The failure becomes the object of attention. Concern lingers on the symptom rather than the cause. Processes of politicization and media amplification isolate the failure from the importance of the mission.

The chapter on the WannaCry crisis is suggestive in this regard. The security threat was created by national security officials themselves. The capacity to trigger crises for their enemies backfired when their new cyber weapons suddenly caused a crisis for friendly nations. The obvious need to investigate national officials distracted attention from the "real" crisis: critical industries everywhere could be rendered dysfunctional from one moment to the next. In the case of foreign fighters, the immediate response included labeling individuals as domestic security threats and barring their return. The lesson: unintended consequences of the focus on symptoms (rather than underlying causes) may be more diffuse, global threats down the road.

10.2.3 *The Dynamics of Crisis Framing*

The case studies in this book bring home a well-known truth among students of policy agendas and even marketing: there is no such thing as an objective definition of truth. A powerful problem definition or "frame" helps to define a threat in such a way that few or many people recognize that threat (Schön & Rein, 1994). And there are many ways to frame a problem.

The case studies strongly suggest that it is hard to formulate a crisis frame that convinces enough people to move the dial on the opinion barometer. We seem to lack the language to capture the immensity of a threat that has not occurred yet (Ghosh, 2017). Whether we talk about the scary possibility of untreatable germs or the idea that climate change may soon make our planet uninhabitable, we seem at a loss for words to hammer that message into the collective conscience and onto the political agenda. It is easier to worry about relatively small threats (airplane crashes) or threats directly in front of our face (Covid-19).

Governments appear at times reluctant to frame something as an impending crisis. Perhaps this is because a crisis frame runs counter to the political paradigm of the moment (migrants in Sweden), or it may be because a crisis frame implies responsibility (the Groningen earthquakes). Interestingly, the international community (the amalgam of NGOs, international organizations and think tanks) appears to have few qualms in framing this or that development as a creeping crisis. But such frames invite limited action if the frame does not gain any traction at the national level.

10.2.4 *Societal Dependence*

One rather simple but powerful explanation of the limited attention that creeping crises sometimes receive is the societal dependence on the conditions that spawn these threats. The Dutch government was less than eager to recognize gas-induced earthquakes since the sale of that gas filled the coffers of the Dutch government. Information technology security requires a degree of decoupling from our cherished computers, mobile phones and the Internet. How can we recognize climate change as an urgent crisis if the solution would require a total revamp of the economic drivers that provide our prosperity?

The threat of antimicrobials is illustrative. It may kill us in the future, but there is precious little attention given to this broadening threat. The chapter in this volume describes how human practices, e.g., prophylactic use, create the conditions for its spread in time and space. It demonstrates how the addressing of the conditions at one level feed the threat in another system. But it also makes clear that many, many people—especially those with low incomes—depend on the cheap medicine that lies at the heart of the problem. It is easy to understand why people who cannot afford even the most basic preventive facilities, such as clean water, will not forego an affordable medicine that can keep them healthy today (even if it may kill them in the future).

No solution, no problem—this is how Aaron Wildavsky famously explained the lack of attention for seemingly pressing issues.¹ In other words, if our dependency on a technology or a way of life prevents us from considering alternatives, we don't really have to pay much attention to a

¹The provenance of the expression is not clear. An Internet search suggests that the Dalai Lama also used this quote.

potential threat that plays out over the long time. If major sacrifices are politically infeasible, we should not expect much attention to the threat that would demand them. Put in yet another way, well-functioning societies may place the discussion of prosperity-generating technologies and practices outside of reform discussions. Creeping crises derive much of their energy from such taboos.

10.2.5 *Failure of Imagination*

In many of our chapters, national officials perceived emerging crises as “only external” and thus as not of immediate concern or within their mandate to solve. The idea that threats might soon crawl across time and space did not fit their mental maps. The migration crisis of 2015 was notable for the lack of “we-feeling” amongst EU member states; instead, states followed their own routines and impulses even when fellow member states issued warnings. Similarly, the case of foreign fighters shows how the issue is treated primarily from a national perspective, without concern for broader global threats thus created. Perspectives may even be shaped in finer ways: based on a certain agency perspective or epistemological lens. This may blind decision-makers to creeping crises, especially those with a transboundary character.

Not everything can be boiled down to probability and numbers. In the case of Covid-19, experts on infectious disease modeling lamented that “The speed of development surprised us...we thought: this looks like a measurement error” (Engström, Luesink, & Boin, 2021). Estimates by migration experts on the likely pace and spatial dimension of traveling migrants in 2015 were incorrect. Internet security breaches, such as WannaCry, can hit at any time with little warning. Recognizing these threats “bubbling under” requires a different approach than a typical risk approach. Experts that rely on quantitative thinking and shun intuitive understandings of emerging crises may find themselves at a disadvantage when trying to imagine what future adversity may look like.

Even with clear warning signs, creeping crises forebode a future that policymakers may not be willing or able to contemplate. The classic case of a failure of imagination were the 9/11 terror attacks in the US. The plot was long in the making and there were clues floating around. But analysts did not grasp the importance of the clues; they did not “put the pieces of the puzzle together” as the saying goes. It is hard to imagine what you don’t know (Kahneman, 2011).

The national experts had all the international information on the spread of Covid-19 they needed to take early decisions but seem to have hesitated because they had no personal experience of an outbreak—they could not feel it like their Italian colleagues who were living through the pandemic. Cognitive understanding was simply not enough to generate sufficient action. As the Dutch medical professor put it after having analyzed the many facts and images from China and Italy, “You see it, but you do not feel it. Only when you feel it, you are aware of it” (Engström et al., 2021).

Creeping crises place a premium on politicians’ abilities not just to crunch numbers, but also to imagine future ramifications of accepted practices to recognize the crisis that is right in front of you. Below we discuss research paths that may lead to a less abstract, more practice-oriented, and temporally informed understanding of the creeping crisis.

10.3 RECOMMENDATIONS FOR PRACTICE: TIME TO START ORGANIZING

Creeping crises present practitioners—even those who want to see them and do something about them—with hard challenges. Some creeping crises just go away, some keep eroding; only a few will materialize and cause real damage. How do we know which emergent threat should be addressed? Why act if the chance of an actual crisis is low and the cost of the only available solution is high? What could possibly trigger a meaningful political response?

Our starting point in answering these questions is simple: the risks of these creeping crises are too large to ignore. The unprecedented complexity and cross-border integration of the systems that we collectively and unthinkingly rely on should justify an effort to understand and address these risks. In our view, this is a leadership responsibility. We formulate a set of basic principles that should provide the building blocks for the effective and legitimate management of creeping crises.

Embrace the creeping crisis. Modern society is besieged by creeping crises. Denial may be tempting and even rewarding in the short run. But the threat is real. There is an even better reason for taking creeping crises seriously: they point to deep underlying causes of future dislocations. Creeping crises are portents of invisible shifts that may have all sorts of consequences. The concept is not just relevant for crisis managers, but also for those who seek to predict critical developments. Leaders can create a much better view of the future by embracing the concept and perspective of creeping crises.

Organize the radar. As we have seen, creeping crises are not easy to recognize (even if they develop right before our eyes). A sustained effort must be made to identify this type of threats. They must be actively defined. The signals must be pursued, often across boundaries into unfamiliar or unfriendly domains. This type of effort will require an amalgam of risk analysts, intelligence experts, complexity specialists, and political networkers. Such collections of talent are probably easier found in the world of hedge funds than in government circles. It will take quite an effort to build such teams.

Learn to capture attention. Even the direst threats generate only fleeting attraction. After the first Covid-19 wave crested, societies everywhere moved back to normality with remarkable speed. We now know that Covid-19 had temporarily returned to creeping crisis status, only to reemerge with a vengeance months later. It is hard to capture attention. It is much harder to maintain it. Leaders will have to learn how to keep the creeping crisis in focus without succumbing to the negative questioning that (social) media, opposition forces and concerned citizens are sure to produce.

Invest in quick and massive intervention capacity. Actively collecting signals of a creeping crisis is a good start, but it is hardly enough. A targeted intervention, preferably quick and massive, is necessary to terminate these threats. The problem is that the lack of public and political recognition may undermine such interventions, especially if these interventions touch upon perceived entitlements. What is needed is legally sanctioned intervention capacity. Leaders need the room to act forcefully, but these prerogatives need to be controlled by democratically sanctioned institutions. This brings us to the realm of discretionary powers, which are usually reserved for massive disasters, war, or large-scale crisis events. There is a need to explore how these powers can be employed to battle creeping crises, without eroding democratic checks and balances. Intriguingly, creeping crises offer more opportunities for action. It is easier to create specific capacities if threats are slowly evolving, long-term, and well-known.

Treat interventions as an experiment. Addressing a potential threat with sacrificial strategies is not just politically risky, but is also akin to improvising yourself out of a maze. It is an extreme form of crisis management without the rally-around-the-flag support that makes untried remedies more acceptable. More often than not, it will resemble an experiment. One might as well treat it as an experiment, then (Ansell & Boin, 2019). That means formulating a “null hypothesis,” carefully monitoring for

intended and unintended results, modifying the intervention to optimize the result. Such an approach requires measured communications about the nature and effects of the intervention, in order to avoid the derailing effects of exaggerated expectations and subsequent disappointment.

Avoid a false sense of closure. We have noted how an effective response to precursor events can lead to a sense of closure. We recognized the threat and we dealt with it. We can move on; no need to look back. Closure is in order, however, only after the links between the event and underlying forces have been extensively probed. It has to be ascertained that the underlying cause has been removed. The treatment of mere symptoms may hide the real crisis from view, providing it with room and oxygen to grow and morph.

Explore connections with societal dependencies. It is critical that signals of creeping crisis are studied to see if and how they are rooted in societal dependencies. If they are, the political challenge will be of gargantuan proportions. The task of organizing an intervention is also unexpectedly urgent, as the creeping crisis is likely targeting the pillars of future prosperity. This realization buys political and societal leaders time to imagine an alternative future that is both believable and attractive. If sacrifices are on the table, leaders must persuade voters that an alternative to today is not only necessary but also preferable.

Be transparent. It is tempting to address creeping crises without much fanfare. The successful prevention of a future crisis is, after all, not a vote generator. It even generates political risks. There's a paradox: when you do well, you may stand accused of crying "wolf." Better to work in the background, without rocking the boat too much. While understandable, that sort of thinking is not just a mistake. It is also a lost opportunity to prepare citizens for a new future. The public interrogation of creeping crises can kick-start a societal debate about the necessity and desirability of long-unquestioned practices. A creeping crisis can help to bring home the message that certain things are best changed before they wreak havoc.

10.4 PARTING THOUGHTS: WHY THE RESEARCH MUST CONTINUE

If our recommendations for practice seem long on generics and short on specifics, it is because we still know so little about this phenomenon of the emerging-yet-still-to-fully-materialize crisis. In fact, we are still searching for a language that can help capture the type of threat we are facing. We

are building an analytical perspective to capture a specific phase of threat development. The perspective brings together the analysis of threat accumulation with the attention span of politicians, media, and citizens. Importantly, we have shown that these are all interrelated, creating what we may term the dynamics of crisis development.

We showed that there is no linear logic underlying these dynamics. There are long spells of stability or decline. There are different types of tipping points: in the accumulation of threat, attention, and response. We have shone a light on precursor events, which may trigger a response that feeds the underlying threat development. To really understand how these processes arise and interrelate, we need more study. We need to bring together risk experts and complexity researchers, political scientists, policy scholars and crisis management students. There is much work ahead, clearly.

There is a need for a process-oriented focus on the complexity of creeping crises, including their non-linear evolution and sudden manifestations. We recommend that researchers take a closer look at the human practices and the temporal dimensions behind the creeping crises. We are sympathetic to a pragmatist approach (Ansell & Boin, 2019; Dewey, 1930) and practice approach (Bourdieu, 1990; Ekengren, 2018) to help move the study of creeping crises forward.

It is important work. This book offers a clear and workable definition of creeping crisis because, without one, it is hard to garner attention for it (as our chapters on climate-induced migration gas-induced earthquakes make so clear). What can't be defined, one could say, can't be measured. We need to define indicators of accumulation, escalation, and tipping points. What can't be measured is easily disputed. There is a risk here, then, that the problem at hand becomes an object of increasingly abstract discussion. Real action requires sustained attention. That only happens when the creeping crisis can be convincingly related to cherished values, norms, and practices. Researchers have a short road to relevance before them, if they wish to see it.

The most pressing question, perhaps, relates to our capacity to live with the various creeping crises that may or may not materialize, sooner or later. There is a level of uncertainty that clashes with the modern aversion against unwanted and unscheduled events. The urge to control risks sits uneasily with the idea that we do not understand these risks. Research cannot answer these questions, but it can provide knowledge and insights that may shape an informed discussion. We will continue on our mission. We invite readers who feel inspired to join us.

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