



What's Going On?

Abstract For a crisis to be effectively governed, it must first be noticed, interpreted, understood and assessed. This chapter explores how policy-makers ‘made sense’ of the emerging COVID-19 pandemic. We focus on: (1) how policymakers around the world detected the developing threat as it emerged first in China and then in Italy; (2) the prominent involvement of scientific expertise in government sense-making processes (and in narratives about those processes). We discuss the complex dynamics between experts, decision-makers and publics that ensued.

Keywords COVID-19 · Sense-making · Uncertainty · Experts · Incubation period · Blind spots

The spectre of an unknown virus arising in China gave certain public-health officials nightmares, but it wasn't on the agenda of most American policymakers. (Wright, 2021, p. 4)

We had to make 100% of the decisions with 50% of the knowledge—Dutch Prime Minister Mark Rutte (Boin, Overdijk, et al., 2020, p. 42, translation)

A SENSE-MAKING NIGHTMARE

Pandemics belong to the category of ‘known unknowns’ (*pace* Donald Rumsfeld): low-probability, high-impact contingencies that risk managers the world over have had in their sights for a long time but, as Wright correctly noted above, did not emerge immediately on policymaking agendas (Garrett, 1994; National Intelligence Council, 2000). In the decades leading up to COVID-19, experts warned that the next pandemic was overdue; diseases such as SARS and Ebola were widely viewed as harbingers of things to come (e.g. Baekkeskov, 2017; Baekkeskov & Rubin, 2017; Nohrstedt & Baekkeskov, 2018; Olsson & Xue, 2011). Yet, in many countries, the signals of the COVID-19 crisis were somehow missed or did not lead to decisive action.

For a crisis to be effectively managed, it must first be noticed, interpreted, understood and assessed. We call this sense-making. Crisis analysts set great store in the Thomas theorem, which holds that ‘if men define their situations as real, they are real in their consequences’ (cf. Rosenthal et al., 1989; Thomas & Thomas, 1928). If not enough people—or not enough powerful people—sense risk, sense threat, sense significant values and interests being at stake, the system will not respond; or it responds in, what later turns out to have been, a too-little, too-late fashion. Likewise, if enough powerful people get all worked up about a relatively minor threat that looms large in their belief systems, the system will respond even as outside observers or subject matter experts deem that response too much or premature. In other words, systems may respond to emerging threats in timely and proportionate fashion, but they may also underreact or overreact (Maor, 2018).

The dynamics of sense-making are at the heart of shaping those responses (Janis, 1989; Jervis, 1976; Lebow, 2020; Vertzberger, 1990). Sense-making refers to the social and cognitive processes of registering and analysing cues, signals and data about an impending threat and imbuing this information with meaning. Cognitively, this happens in the brains of individuals. But it is also and perhaps foremost a social process. When interpreting signals, individuals take into account beliefs, norms and expectations from others and the social groups they belong to (Douglas, 1986). They talk to each other about what they see and what they think it means. This ‘collective sense-making’ provides the vital link between threats materializing in the world ‘out there’ and the nature and timing of a system’s responses to those threats (Weick, 1995).

The importance of sense-making as a precursor to action does not stop when a crisis is recognized and called. Sense-making remains critically important throughout the lifecycle of the crisis, directing policymakers' attention to selected cues, propelling them towards some but not other interpretations of how the crisis is developing, guiding them towards some but not other courses of action.

This is particularly true in crises where events keep shifting in turbulent fashion and uncertainty about crucial parameters of the crisis continues to prevail. Experts may not have the answers one would expect them to have. Different players in the system may espouse different interpretations of the events. People may believe (and spread) rumours and falsehoods while ignoring the 'real facts' of the matter.

In such crises, policymakers are not just wrestling with the gravity of the threat and the enormity of the stakes involved; they are coping with pervasive uncertainty. They must govern in a state of *sustained ignorance*: they do not know what exactly is going on, what will happen next, what the drivers of the events are, how others in the system are experiencing and coping with the crisis, what the impact will be of the options laid out before them.

The COVID-19 crisis ticked all the boxes that policymakers dread: a potentially enormous but hard to ascertain multi-threat; high levels of scientific uncertainty about the behaviour of the virus and its health impacts; high spatial and social mobility of the threat agent; various mutations of the virus; lack of readily available technical fixes and lack of clarity when they become available and what exactly they can do; increasing volatility in the public mood and the public's willingness to keep 'doing the right thing' as the crisis persisted.

The list of uncertainties and ambiguities did not get any shorter during the COVID-19 crisis. As the pandemic evolved into a multi-faceted crisis, the state of ignorance deepened with regard to the social, psychological, economic and political implications of virus response regimes. The COVID-19 crisis has been a sense-making nightmare for leaders. The Dutch prime minister expressed his exasperation well when he noted that he had to make '100% of the decisions with 50% of the information' (Boin, Overdijk, et al., 2020, p. 42).

So how did leaders fare when it comes to this sense-making challenge? Many leaders were informed about the new virus but found it hard to act. They only began to act when hospitals were suddenly and quickly filling up, prompting a sense of crisis. This pattern repeated itself in many

countries when the ‘second wave’—widely discussed during the interlude between waves—did, in fact, materialize. We also see a few outliers: governments who grasped the enormity of the challenge and acted immediately (see, for instance, Taiwan, South Korea, New Zealand, Israel and Singapore).

In this chapter, we explore how policymakers ‘made sense’ of the emerging COVID-19 pandemic. We focus on two phases of the crisis: (1) how policymakers around the world detected the developing threat as it started to emerge first in China and then in Italy; (2) the prominent involvement of scientific expertise in government sense-making processes (and in narratives about those processes). We consider if these factors can explain the differences in sense-making that have been widely observed.

DETECTING COVID-19: COMMON CHALLENGES

In most countries, except China and Italy, the pandemic did not hit as an acute, ‘big-bang’ type of crisis. It took weeks, in some cases months, for the coronavirus to migrate from China to infect a substantial number of people in Europe. It meandered across national borders, eventually encroaching on every territory in the world. Media reported widely on the coronavirus, the lockdowns in China, the arrival of the virus on other continents. Its pace of development did perhaps not quite resemble the inch-by-inch dynamic of a “creeping crisis” (Boin, Ekengren, et al., 2020), but it provided experts and decision-makers with plenty of time to learn about the threat and appreciate its potential impact (Table 2.1).

Some countries, as noted, reacted quickly. At the end of January, the German Health Minister, Jens Spahn, still compared the coronavirus to the flu. By mid-February, he warned the Bundestag that a global pandemic could not be ruled out (Deutscher Bundestag, 2020, p. 18084). Another two weeks later, Spahn declared that the epidemic had arrived in Germany and ordered the regional governments of the *Länder* to activate their pandemic plans (Gensing, 2020).

Some countries did not react at all (Nicaragua, Belarus) or not in a coherent way (the US, Brazil). Some countries—the UK comes to mind—made major U-turns in their response policy as unfolding realities belied the beliefs and assumptions that had guided their initial actions, or lack thereof (cf. Hale et al., 2020). In most countries, however, initial denial and downplaying were followed by a sudden recognition that the crisis was not only real but had actually arrived (see Table 2.2, and Boin,

Table 2.1 Warning signals of the impending pandemic

31 December 2019	The China Country Office informs the World Health Organization (WHO) about a cluster of unknown pneumonia cases
7 January 2020	Chinese experts announce that the virus is a new coronavirus
11 January 2020	The first corona death is reported in China
13 January 2020	The first corona case is reported outside of China (in Thailand)
20 January 2020	Chinese experts confirm that the new coronavirus is transmitted human-to-human
23 January 2020	The city of Wuhan is in lockdown
24 January 2020	First corona case reported in Europe (in France)
30 January 2020	WHO declares the new coronavirus a public health threat of international concern.
4 February 2020	China reveals a new hospital with 1000 beds which was built in less than 2 weeks, while the country is receiving personal protective equipment from European countries. China's healthcare system is under extreme pressure because of the rapid increase in new coronavirus cases
7 February 2020	The WHO warns of a global shortage of personal protective equipment (PPE)
15 February 2020	First corona death in Europe (in France)
21 February 2020	A rapid rise of corona cases in northern Italy
2 March 2020	The European Centre of Disease Prevention and Control (ECDC) updates its risk assessment from "moderate" to "high" for the general population of Europe
12 March 2020	The ECDC states that the virus can no longer be contained and social distancing measures should be implemented as soon as possible

Table 2.2 Periods between first infection and first measure in four European countries

	<i>United Kingdom</i>	<i>The Netherlands</i>	<i>Sweden</i>	<i>Germany</i>
First infection	29 January 2020	27 February 2020	31 January 2020	27 January 2020
First death	5 March 2020	6 March 2020	11 March 2020	9 March 2020
First measure(s)	16 March 2020 (ban on events with more than 50 people)	12 March 2020 (limit on the max. number of people in cultural facilities, gyms, universities)	11 March 2020 (ban on social gatherings of more than 500 people)	10 March 2020 (large events are being cancelled, e.g. in cultural facilities and sports events)

Overdijk, et al., 2020; Rubin & De Vries, 2020 for case-study accounts of this pattern in the Netherlands and Denmark). In crisis language, we saw a long incubation period with a sudden punctuation.

This brings us to the chief sense-making puzzle of the early stage of the crisis: why did it take so long for countries to realize what was coming? And why did some countries start to acknowledge the threat much earlier (a week is a long time in an escalating pandemic) than others?

To answer this question, we must discuss two challenges. First, there is the challenge of *signal recognition*. Policymakers are confronted, almost on a daily basis, with a barrage of information signalling that something might be afoot. There are many slowly developing and potentially relevant threats “out there”. Many of these signals are ambiguous and, we find out later, incorrect. Policymakers must somehow recognize the “correct” signal—the one they need to act on. Second, it is one thing to register that something bad might happen, but appropriate action is unlikely to follow if policymakers do not also correctly *assess the signals*. They must make the correct inferences about the nature, scope and escalation potential of the problems the system is facing.

Why Crises Are Easy to Miss

Crisis research into the incubation periods of multiple crises shows that both these sense-making challenges—recognition and assessment—are easy to fail, giving rise to what in retrospect appear to be glaring failures of foresight (Hindmoor & McConnell, 2013; Parker & Stern, 2002, 2005; Turner & Pidgeon, 1997). A number of social science insights help to explain why this is the case.

Complexity theorists, for instance, explain that many threats do not behave in linear fashion (Buchanan, 2000; Scheffer, 2009; Taylor, 2001). Crises incubate, develop and escalate towards a tipping point, after which the threat rapidly escalates, possibly exponentially so. These tipping points are hard to predict, sometimes even hard to recognize in ‘real time’. This is certainly true for COVID-19: the initial number of infections may have seemed and continued to appear low for some time, but there was always the potential for them to start rising exponentially (as the world learned from explanations about the non-linearity of viral infection rates, captured in the much-discussed ‘R0-value’).

Perrow (1984) offers a supplementary explanation. He noted that when highly complex systems display a high level of interdependence

between their component parts, the ripple effects of a small incident or error may be both large and travel very quickly across the system. Just as a technological glitch may trigger a chain of events stretching from one complex system to another, a person who is infected with a communicable disease may quickly spread the virus by entering hubs in a travel system. This causes what we refer to as a transboundary crisis, which is marked by cross-boundary escalation of a threat (Ansell et al., 2010; Boin & Rhinard, 2008). A tsunami can spill over into a nuclear accident. An electricity failure in one country can lead to a gas shortage in another country. All within a matter of hours or days. As we have learned from the SARS crisis, a virus originating in China may rapidly paralyse a city in Canada (Olsson & Xue, 2011). COVID-19 paralysed much of the world within months of its first outbreak in Wuhan.

Organizational factors play a big role in the sense-making process. In complex organizations and networks, information does not flow efficiently (Turner & Pidgeon, 1997). How organizations are structured, what information-sharing routines they have evolved, what beliefs are ingrained and which are considered heretical, what ‘turf’ is fought over in the space between organizations—all these factors drive institutional threat perceptions. They help to explain why ‘the dots were not connected’ (Kam, 1988; Parker & Stern, 2002, 2005; Wilensky, 2015).

Institutional biases and organized blind spots in collective risk perception also play a role (Bach & Wegrich, 2019; Douglas & Wildavsky, 1982; Freudenberg, 2001; Seibel, 2021). Researchers have noted that many “warning signals that, with the benefit of hindsight now seem obvious, were actually ambiguous and fragmented because they were received and interpreted within a very different ideational environment” (Hindmoor & McConnell, 2013, p. 543). Research on man-made disasters highlights the importance of distraction: political attention going to what in retrospect prove to be ‘decoy phenomena’ (Turner & Pidgeon, 1997). For example, UK Prime Minister Boris Johnson was in the vortex of the Brexit crisis when COVID-19 emerged. In the Netherlands, the focus was on two winter storms.

But surely *some* signals are impossible to miss? It turns out that there are plenty of psychological factors that explain why people fail to recognize impending, and seemingly obvious, signals of danger (Kahneman, 2013). These have to do with the *inconceivability* of certain events: some threats simply escape the imaginary capacity of policymakers and citizens alike (De Smet et al., 2012). If you can’t imagine a threat (because you

have never experienced it), you may not recognize it. Hurricane Katrina provides an example (Boin et al., 2019). Policymakers had known of the theoretical risk that a hurricane might break through the levees that protected New Orleans from the surrounding water. But they had never *imagined* it. When it actually happened, the surprise was complete.

Inaction in the face of signs of trouble is not just a product of inadvertence (McConnell & ‘t Hart, 2019). Political factors matter as well. What we chose to see (and, by implication, not to see) is shaped by what we value, who we identify ourselves with, what we fear, who we loathe, what values and goals we prioritize, what we feel is in our interest to focus on and what we feel we can afford to discount. How public policymakers think about risks, threats and crises is political at heart—and so we should be attuned to the *politics of sense-making* through which their thoughts are formed, bolstered, questioned, adjusted and abandoned (cf. Schattschneider, 1960).

Some policymakers may *choose to ignore* information about an impending threat. They may think that there is no solution. They may not like the solution or find it politically infeasible. They may think that the solution is worse than the cure. They may fear that the public will not want to make sacrifices needed to counter the threat. They may be convinced that the public will panic if they learn more about the threat. They may want to keep the issue small until after the upcoming election. Political considerations and preferences can and do sometimes muffle loud and clear warning signals.

The leaders of the US, Russia, Mexico and Brazil were all informed about the virus and its potential consequences, but went to great lengths to talk down its importance. As late as March 3, UK Prime Minister Boris Johnson told the public that “for the overwhelming majority of people who contract the virus, this will be a mild disease from which they will speedily and fully recover” (Prime Minister’s Office, 2020a). In mock-Churchillian fashion, Johnson encouraged the country to “take it on the chin”—before succumbing to the virus himself and come close to death just weeks later (Cottle, 2020). These leaders chose to keep seeing the world as they liked it to be rather than for what it actually had become—which, as Machiavelli cautioned, is a costly error to make for a ruler.

Especially when combined, these research findings can help to explain why so many government leaders in Europe and the Americas (much less so in South-East Asia) assumed things were under control throughout the months of January, February and even into early March 2020. Yet, these

accounts leave us with a lingering question: as this was not a ‘unknown unknown’ but rather a known risk coming true, moving slowly and well documented, how come leaders were not warned in time and properly advised to act? Did the experts really miss the crisis they had been studying and expecting throughout their distinguished careers?

THE ROLE OF EXPERTS

The relation between experts and decision-makers is complex, ambiguous and sometimes tense even in the best of times (Cairney, 2016, 2020; Parkhurst, 2020). Experts cover multiple disciplines, often disagree and use different methodologies and interpretations. Their evidence can seem partial and contradictory. They couch their warnings in technical terms. They offer predictions in vague, probabilistic statements. Moreover, experts are often proven wrong in their predictions and threat assessments (Tetlock, 2017).

When acting in an official capacity (in a governmental body for instance), they can act more like advisors than scientists. Even when they have a good hunch about the nature of the developing threat, they may still be careful to announce their opinion too soon. They know that “calling a crisis” is an inherently political act (Spector, 2020), with serious organizational, psychological, economic and social implications. They may want to avoid being branded a Cassandra, and therefore factor in reputational and tactical considerations in choosing when and how to appraise the policymakers of the critical signals that they have begun to detect.

Experts played leading roles in the COVID-19 crisis, to a much larger extent than customary in ‘normal’ crisis situations (e.g. Sager & Mavrot, 2020). They enjoyed this access primarily because their professional expertise was seen as absolutely essential to make sense of core questions that governments were facing when formulating responses to the pandemic. In many countries, chief scientists became well-known public figures, attracting praise but also severe criticism. Elite scientists—virologists, epidemiologists, medical specialists but also economic and behavioural experts—were brought right into the heart of government decision-making. Some became ‘super-advisers’ whose inputs counted more for policymakers than those of other scientific experts or more regular public service and political advisers.

For instance, Sweden’s chief epidemiologist, Anders Tegnell, became an unlikely folk hero during the early stages of the pandemic. His low-key, matter-of-fact demeanour helped the Swedes to make sense of what was happening to them, as did his confident defence of the Swedish government’s policy to rely mostly (though never exclusively) on social distancing and voluntarily working from home. The great majority of Swedes felt that Tegnell sensed correctly what made them tick in a crisis—being given the freedom to act responsibly—and rewarded him with their trust.

In New Zealand, Dr Ashley Bloomfield, Director General of Health and head of the National Health Coordination Centre, became a household name to New Zealanders. He conducted the daily briefings in which he ‘made sense’ of the evolving pandemic situation. He threw his weight behind one of the most forbidding lockdown regimes in the world. His measured, consistent and slightly nerdy performances turned him into one of the most revered public servants in the nation (Cameron, 2020). In the words of one columnist, “Ashley Bloomfield, like the Tiger King, is now memetic. As I write, Ashley Bloomfield is the number one trend on Twitter. Ashley Bloomfield has gone coronaviral” (Rawhiti-Connell, 2020).

Many scientists became famous, but were they effective? Two observations stand out with regard to the role of scientific experts in the management of COVID-19.

First, experts did not collectively miss or ignore the threat of COVID-19. The Dutch case provides an example. In January 2020, acting on the rapidly accumulating information about the new coronavirus in China, Dutch health officials dutifully placed COVID-19 on the list of A-diseases (which contains diseases like smallpox, SARS and Ebola). The coronavirus had not been detected in the Netherlands at that point in time. Following protocol, doctors were put on notice to notify authorities as soon as they identified patients who might carry the disease. In many other countries, experts took this same first critical step in pandemic management.

Second, experts operated within the confines of “received wisdom based on how previous respiratory viruses behaved” (Dr. Jacob Lemieux, in an interview with Wright, 2021, p. 21). Much is known about the coronavirus. This particular coronavirus, however, behaved differently. Wright (2021) explains how the experts were misled: “The new pathogen was a coronavirus, and as such it was thought to be only modestly contagious, like its cousin the SARS virus. This assumption was wrong. The virus

in Wuhan turned out to be far more infectious, and it spread largely by asymptomatic transmission” (p. 2).

This is also the first point in time where countries began to diverge in their responses. In countries with vivid institutional and cultural memory of previous pandemics (countries such as Taiwan, Hong Kong, Singapore and South Korea), the recognition of the *possibility* of an A-disease emerging within their borders generated acute threat perceptions and prompted swift, far-reaching response measures (closing the borders, initiating mass testing, contact-tracing, imposing lockdowns) (An & Tang, 2020). In some countries without direct experience, key experts and institutions engaged in rapid learning from the unfolding pandemic in China to inform their sense-making (e.g. Petridou et al., 2020, on Cyprus). In hindsight, we can say that the decision-making process in these countries worked as it should.

Most countries were slower in their reaction, awaiting evidence for the virus to manifest itself within their borders. This disconnect between knowing and acting originated with the same experts that had placed the new coronavirus on the A-list. It is almost as if they could not believe that this was the pandemic that they had been warning against for years (cf. Garrett, 1994). After the 9/11 attacks, the official inquiry described the failure of terrorism experts to see this attack coming as a “failure of imagination”. In the case of COVID-19, it appears that many experts failed to imagine that this pandemic could happen in their country and could cause many deaths among their fellow citizens. Dr. Fauci told Americans in a radio interview that the new virus was not something they “should be worried or frightened by” (Wright, 2021, p. 5). Another US expert, Dr. Link, recalls: “We thought we’d get one or two cases, just like Ebola” (Wright, 2021, p. 25).

The Dutch example, mirrored by many other European countries, is again informative. Experts of the Outbreak Management Team, the official advisory group of the Dutch government, repeatedly downplayed the severity of the virus (“like a flu”), the chances of propagation among the general public and the chances that the virus would reach the Netherlands (Boin, Overdijk et al., 2020). The public was encouraged to carry on with their lives, which they did. Even when the first cases emerged in Germany, just a few miles from the Dutch border, Dutch experts saw no reason to advocate for any sort of intervention (such as limiting or terminating carnival festivities and professional soccer matches). They did not change their stance until nervous doctors began to call in from one area

of the country advising that hospitals were being besieged with COVID patients. It was the first week of March when the government scientists slowly became aware that, in typically Dutch parlance, “the water had started to run over their shoes” (Boin, Overdijk et al., 2020). Yet, even then they were hesitant to call for social distancing beyond personal hygiene and refraining from personal contact (no handshaking).

In the UK, the expert advisory group called SAGE started convening regularly at the end of January. The group monitored the situation, provided updates to government officials and wrote advice on which actions to take, or not to take. From January 31 onwards, the risk level was assessed as “moderate”. On March 12, the risk level was changed to ‘high’, moving the country from the contain phase to the delay phase; new cases would no longer be tracked and tests would only take place in hospitals (Grey & MacAskill, 2020). The minutes of the March 13 SAGE meeting record that “things are worse than we thought” (Sample et al., 2020).

In Sweden, state epidemiologist Anders Tegnell assured the Swedish public that the virus was less dangerous than SARS and MERS (Nordevik, 2020). The Public Health Agency (FoHM) asserted that a large outbreak was unlikely because the virus would have to be very contagious which “does not seem to be the case with this virus” (Folkhälsomyndigheten, 2020a). The Swedish Ministry of Foreign Affairs stated that everything was under control (Von Hall, 2020). Tegnell later apologized that he had not adequately grasped the severity of the virus. He admitted that more could have been done to reduce mass casualties among the vulnerable elderly (Lindeberg, 2020).

Fantasy Plans

In those early February days, experts in many developed countries reassured the public that if the virus should reach their country, health professionals would deal with it. In the words of CDC director Redfield: “We are prepared for this” (Wright, 2021, p. 4). Looking back in December, one of the Dutch experts, intensive care specialist Diederik Gommers, explained that “we were too optimistic in the early phase of the crisis. Again and again, I intervened just a week too late” (Weeda, 2020, p. 45). A strong belief in existing national and WHO preparations for a pandemic appears to have influenced the initial COVID-threat assessment.

There were plans and the experts assured policymakers that the plans were good. Experts could (and did) point to previous virus outbreaks—SARS, Ebola, H1N1 and MERS—that had been controlled and whose impacts had been well contained.

The Dutch provide yet another instructive example. The formal designation of COVID-19 as an A-disease provided the Dutch Minister of Health with extended powers to impose measures on individuals and society. The minister showed no interest to use his extended powers. Indeed, Dutch policymakers and the Outbreak Management Team experts repeatedly touted the ‘excellent’ preparations of the public health system. The Dutch had successfully dealt with other diseases (such as the Mexican flu), which was taken as evidence that the plans had been proven to work. The implication was clear: even if the coronavirus would arrive, public health professionals would deal with the threat (Boin, Overdijk et al., 2020).

In the UK, the uniform message from both political officials and experts was that the UK was well prepared in case the virus would reach the island (Department of Health and Social Care, 2020). In his first public statement about COVID-19, late February, UK Prime Minister Boris Johnson stated that the National Health Service is “a fantastic system” and “is making every possible preparation” (BBC, 2020). In Sweden, all branches of the government and the expert agencies were confident in their ability to face the challenges the new coronavirus could pose. When more than three weeks went by between the first and the second corona case in Sweden, state epidemiologist Tegnell claimed that “this shows that our current strategy works” (Folkhälsomyndigheten, 2020b). In Germany, Health Minister Jens Spahn professed confidence in the German healthcare system, which, unlike other countries, had indeed plenty of testing capacity (Deutscher Bundestag, 2020).

On February 13, 2020, the first emergency meeting of EU health ministers took place. “Andrea Ammon, the ECDC director, told them that Europe had adequate lab capacity and that the EU’s containment strategy was working. The real problem, they heard from the WHO’s emergencies chief, Mike Ryan, was Africa, which just had two labs for the entire continent — with a population three times bigger than Europe’s” (Herszenhorn & Wheaton, 2020). On 25 February, “Ricciardi, the adviser to the Italian government, who was present at the meeting, said that with some exceptions, including Germany and France, he had the strong sense that, at least initially, the others thought ‘the

problem was Italy, you know — not the virus”’. The EU members did not seem to think the virus was the problem, but Italy’s way of governing (Herszenhorn & Wheaton, 2020).

We now know that these pandemic plans were more like ‘fantasy documents’ (Clarke, 1999); they did not suffice in the light of the crisis scenario that was unfolding. Many national and subnational pandemic plans were dated, sometimes up to a decade old and not regularly exercised or revised. Some plans focused on diseases that had not reached their country or on diseases dating back a century (Spanish Flu) (Capano et al., 2020). European and North American governments “had no or only outdated relevant past experiences with such pandemics. They were confident in their capacity but lack the competences, including in decision-making, required to do so effectively. This made the reaction of most of these countries slow and uncertain” (Capano et al., 2020).

The real problem was that the experts did not understand the virus and thus did not understand that their plans would not suffice. The pandemic playbook in place implicitly assumed that understanding the crisis would be the least of the government’s problems. The prescribed protocols were based on the assumption that there is a ‘patient zero’ who can, in principle, be identified and found. If health authorities are properly prepared, they will identify the carrier of the virus and all those who have been in touch with the carrier (this is the often discussed ‘track and trace’ task of health authorities). The cognitive backstop in this paradigm is that a carrier of the virus who is not found in time will sooner than later succumb to the disease and, in the optimistic scenario, present him or herself to a doctor. Hollywood movies closely follow this script.

COVID-19 dismantled the paradigm and the plans it had spawned. Many carriers turned out to be asymptomatic and many patients had only mild symptoms, which resembled the common flu. In other words, the biggest pandemic of recent times came disguised and sailed passed the initial defences set up by pandemic planners. By the time that health authorities began to understand the virus, it had spread widely. Robert Redfield, the director of the US Centers for Disease Control and Prevention, explains: “The whole idea that you were going to diagnose cases based on symptoms, isolate them, and contact-trace around them was not going to work. You’re going to be missing fifty percent of the cases. We didn’t appreciate that until late February” (Wright, 2021, p. 2). It did not help that most countries had limited tested capacity.

When experts eventually did understand that the new virus was the proverbial black-swan anomaly shaking the foundations of their paradigm, they acted. A report by a research group of the Imperial College London, published on March 16, jolted politicians across Europe and the US. The research group had modelled the effects of the various approaches that the government considered. The researchers warned that without a correction of the *laissez faire* approach then in place, hundreds of thousands would die from COVID-19 in the UK alone (Ferguson et al., 2020; Prime Minister's Office, 2020b). That same day, Prime Minister Boris Johnson announced the first social distancing measures for the UK. Other countries had already begun to act, based on expert readings of the draft report.

We can ask why some leaders acted late. We can also ask why some leaders acted proactively and, as we now know, in time. Both questions, in most cases, receive the same answer: because the experts told them so. We can only hypothesize why experts, operating on the same scientific knowledge base, offered different advice. Two possible explanations jump out. First, in countries where previous pandemics such as SARS had *not* been controlled, experts had learned how fast a virus could sweep across the community. Second, in countries where health care was clearly not excellent or even available to most people, experts could not believe in a plan that was based on that notion.

NAVIGATING UNCERTAINTY: SCIENCE-POLICY INTERFACE AT KNIFE'S EDGE

Most governments thus entered the COVID-19 crisis with a very limited view of the spread of the virus in their territory. Moreover, little was known about the disease trajectory, who was particularly vulnerable, and how the disease was best treated. Many political leaders announced their adherence to a science-led policy and publicly identified (and praised) the experts on whom they relied (Cairney & Wellstead, 2020). This made sense, as these experts were selected for precisely this purpose (it would be weird, to say the least, if governments had not relied on them). The cloud of uncertainty lifted very slowly, as scientists and doctors raced to investigate and share their findings (Capano et al., 2020; McConnell, 2020).

Time and again, the virus outpaced the advice of the experts. It remained hard to assess the scope and severity of the constantly evolving

threat. The scientists based their advice on evidence, which was inherently limited in the mist of the crisis. Policymakers began to lose faith in the advice of the experts before the crisis had fully begun (Cairney & Wellstead, 2020). It did not take long for politicians to veer away from expert advice when they realized that the experts had underestimated the spread and lethality of the virus (Rubin & De Vries, 2020). Evidence-based sense-making was deprioritized, at least temporary. Leaders emphasized the importance of trying anything—proven or not—to save lives. In the first days of March 2020, the Danish prime minister operated:

in a sense-making frame where major decisions needed to be made fast to avoid an impending disaster, and where scientific evidence alone could not be trusted to reach the right policy conclusions. The leading health authority experts, on the other hand, appeared to be in a frame where evidence-based decision-making was still the *modus operandum*, and where policy recommendations were continuously updated as new scientific information became available. (Rubin & De Vries, 2020, p. 3)

Government leaders sometimes opted for harder measures (e.g. school closures) than their experts advised, following high-profile interest groups (e.g. teachers unions, medical bodies) that made their voices heard. In some countries, non-government virologists publicly urged the government to aim higher, go harder and ignore the advice of the official scientists. For example, New Zealand's shift from flattening the curve towards eradication of the virus was prompted by such 'outside-in' advice from two university virologists (Wilson, 2020).

Media increasingly scrutinized the relation between scientists and decision-makers. Decision-makers had to explain why they did not heed expert advice; experts had to explain how they could have been so wrong about this or that. But despite their patchy record in the lead-up to the pandemic, government experts remained pivotal players throughout the response phase. Around the world, heads of government and cabinet ministers tirelessly repeated that their choices were 'guided by the experts'.

Politicians continued to rely on experts because the uncertainties just kept coming. In most crises, uncertainty gradually gives way to an informed picture of the situation. In this particular crisis, uncertainty deepened over time. This characteristic alone made the COVID-19 crisis almost impossible to manage. While more became gradually known about

the virus and its impact, uncertainty deepened with regard to the impact of government measures. How long could businesses and industries cope with the sudden downfall of their markets? What was happening behind the doors of vulnerable households? What would be the effect of school closures on the learning trajectories of children? When these issues were gradually resolved (from a scientific point of view at least), new problems emerged: virus mutations and vaccine logistics.

Emerging uncertainties increasingly pertained to the behaviour of the public, businesses and the financial markets. This created a demand for insights from the ‘soft’ social sciences (e.g. political science, psychology, sociology). As policymakers soon discovered, academics from these disciplines can be notoriously divided. Their expertise is grouped in, filtered through and strutted by ideologically coloured perspectives. These characteristics bring out the best of the social sciences, but they also limit their sense-making relevance during crises (Gonzalez Hernando et al., 2018). Social scientists simply cannot claim that most of their advice is evidence based (because it is not). Their advice is typically based on good practices from another place or another time. To be sure, this can be good advice. But it is rarely backed up by hard evidence.

Different types of insights had to be traded-off against one another. As a result, a very diffuse, complex and dynamic relation between experts and decision-makers emerged. It initiated a vicious cycle: as more and more (types of) advice created apparent inconsistencies and thus new forms of uncertainty, policymakers felt a need for additional research. This cost time and, in some cases, had a paralysing effect on decision-makers. It is a familiar predicament in crisis management: the call for more information is met with a deluge of data, confounding rather than clarifying the situation.

In most countries, politicians made the critical decisions—with or without evidence-based advice.¹ So why would they repeat the mantra that they were ‘following the science’ when they clearly were not?

This brings us to the politics of sense-making. Their scientific authority made experts not just leading sense-makers but also tools of policy legitimation. For all but the most brazenly corona-sceptic policymakers, who

¹A clear exception is found in Sweden. In accordance with its governance model, chief epidemiologist Tegnell did not just offer advice to policymakers, he actually *decided* on key aspects of the government’s response strategy (Petridou et al., 2020; Pierre, 2020). We could thus say that Sweden gave us the purest example of a science-led response.

preferred getting into noisy public spats with their chief health officers, publicly demonstrating their deference to experts was a political no-brainer. Should any far-reaching decision (close or not close the schools?) eventually turn out to have negative effects, having the fingerprints of principal science advisers all over them might also prove useful to diffuse and deflect blame.

As in recent other viral outbreaks (Baekkeskov, 2016; Baekkeskov & Rubin, 2014), few leaders resisted the lure of the strategy. It worked well: When hard decisions with great social and economic costs had to be justified. When sapping public morale had to be boosted. When the public needed to be disappointed and persuaded to accept restrictions on their freedoms just a while longer or yet again. When citizens needed to be motivated to have needles stuck into their arms. While successful, the potential for backlash was always there as we will see in Chapter 5.

THE PRECARIOUS POLITICS OF SENSE-MAKING

Recognizing signals of an impending crisis is not an easy task. Looking back, however, the COVID-19 pandemic does not appear to have been the most difficult type of scenario to recognize and grasp when it emerged. Yet, many experts, policymakers and politicians were surprised by the escalating speed of propagation and slow to realize the imminent threat to the lives of vulnerable citizens and otherwise healthy economies.

In some countries, of course, experts did warn and politicians did act. In these countries, it may have been more acceptable to act on hunches and instincts that were not yet fully ‘evidence based’. In most (Western) countries, however, it is not. Other interests have to be taken into account. Procedures of ‘sound science’ have to be observed. Prudent, balanced assessment is key.

During the incubation period of the crisis and extending into its response phase, the nexus between the “diagnostic domain” (inhabited by experts) and the “action domain” (inhabited by policymakers) proved more complex and less perfect than the public glorification of experts seemed to suggest (Boin & Lodge, 2019). The experts did not “miss” the impending crisis, but their interventions apparently did not manage to forge a political mindset that took seriously the ‘bad case scenario’ which was unfolding, and to adopt it as the basis for their decision-making (McConnell & ‘t Hart, 2019; see further Chapter 3).

Intriguingly, and posing a prime puzzle for future research, this pattern appears to have largely repeated itself when ‘second waves’ of the virus began to emerge during (northern) Summer and early Autumn. Just when people were celebrating their newly restored freedoms and all the policy talk was about engineering recovery, the virus data started to point the other way, in some cases as early as late July. This harsh reality proved hard to accept, even in hitherto successful polities like Germany. Politicians and experts in many countries did not grasp that it was happening again. They did not display the vigilance one would have expected after having been caught out during the early months of the year.

In ‘normal’ crises, the distinctions between the diagnostic and action domains are clearly drawn and closely guarded. In the context of creeping, protracted, up-and-down-and-up-again crises such as COVID-19, these distinctions become blurred—both a sense of urgency and the discipline of patience are important assets to have but trigger very different types of mindsets and policy propensities.

This provides us with an important lesson: the political appreciation of warning signals is informed by the challenge of timing. Acting too late is obviously costly, but acting too soon may generate accusations of the tail wagging the dog. In the COVID-19 crisis, it has proven difficult to get the balance right.

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