The time of emergency. On the governmental logic of preparedness

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The 2020 Covid-19 pandemic has elicited renewed attention to an approach to emergency which has come to the forefront in recent years, namely preparedness. Scholars have argued that its rationale is profoundly divergent from the securitarian outlook of prevention and precaution, entailing different techniques and ostensibly also a different, non – (or less) dominative, way of relating with the biophysical world. In this paper I argue that, to grasp its logic and import, preparedness has to be considered from the vantage point of the evolution of the anticipatory governance of future, the main forms of which are discussed before looking at how the rise and use of preparedness has been accounted for. Preparedness turns out ambiguous in its implications, as innovative but also consistent with the governmental rationality of late capitalism, with special reference to the latter's commitment to pre-empt any actual change.

Keywords: anticipation, preparedness, pre-emption, neoliberal governmentality, Covid-19 pandemic

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Introduction

In this paper I propose some reflections which move from the Covid-19 pandemic. I am especially interested in the notion of preparedness, as a specific way to address emergencies that has come to the forefront in recent years, informing the regulations and guidelines of the World Health Organisation (WHO). In spite of these, most countries' reaction to the Covid-19 infection has been slow and sloppy. According to some scholar, this shows the difficulty to accommodate the logic of preparedness with the classic securitarian logic of health systems. However, I submit, preparedness should not be assessed just on its own, as «a style of reasoning and a set of governmental techniques for approaching uncertain threats» (Lakoff 2017, 8), but in the framework of the evolution of governmental approaches to the future.

To this purpose, I start by accounting for emergency as a particular temporality, which can be addressed from different perspectives, showing that the governmental one gains salience for the peculiar relationship modernity entertains with future. Such relationship has led to a variety of ways to make future actionable in the present, including prevention, deterrence, precaution, pre-emption and preparedness, whose features are discussed in the subsequent section. I pro-

ceed with accounting for how the rise of preparedness has been narrated, and its rationale assessed. In consonance with recent scholarship in social and political theory, some authors see in preparedness the signs of an overcoming of western modernity's, and especially capitalist globalisation's, destructive relationship with the more-than-human world. However, I argue, the situation is more ambiguous, as preparedness is anything but at odds with the governmental rationality of late capitalism.

The paper does not aim to offer a full-fledged discussion of this problematic, which would require far greater space. Its purpose is exploratory. Further theoretical and empirical work is needed to critically account for emergent ways of governing humans and their relationship with the planet.

What is emergency?

According to the Oxford Dictionary, emergency means a «serious, unexpected, and often dangerous situation requiring immediate action». The Dictionary adds that the term originates from the mid-17th century, «deriving from medieval Latin *emergentia*, from Latin *emergere* 'arise, bring to light'». Emergency, therefore, is related with the verb to emerge. The latter means to «move out of or away from something and become visible». Though this account evokes a spatial imagery, coming to light entails time. And time is no doubt at the centre of the definition of emergency: the situation in question is unexpected; it emerges abruptly, asking for a quick reply.

There is a long tradition of study of time as a social phenomenon, which cannot be recalled here. However, two are the main analytical perspectives, both deriving from Durkheim and his school. The first one focuses on the normative character of time, its stemming from, and at once affecting, social organisation. The second focuses on its socio-cultural aspects, the different ways in which cultures and social groups measure and represent time (Leccardi 1997). Yet, besides the normative and the socio-cultural dimensions of time, there is a third one which may be termed *governmental*, as it calls directly into play power relations. While the normative and socio-cultural dimensions of time are equally relevant throughout history, the governmental one gains special relevance in modernity, for reasons addressed in the next section.

If what characterises an emergency is its eventfulness, then as a governmental phenomenon it can be drawn to two main accounts (Anderson *et al.* 2019). The first one looks at how emergency leads to a state of exception. The challenged political and legal order is suspended to (allegedly) defend and re-establish it. Agamben has extensively elaborated on this outlook, arguing that the state of exception is under-

going a growing normalisation[1]. The second account considers, in a sense, emergency as already normalised, hence as a problem of government. The issue, on this view, is the growing relevance of this problem, the reasons for that and the governmental approaches elicited. This perspective is addressed in the next section.

Modernity and future: the politics of time

The notion of politics of time, or «chronopolitics» as it has also been named (Kaiser 2015; Opitz and Tellmann 2015), registers that, as the way of relating past, present and future with one another is crucial to the social order, it is also a field of power struggles. Various scholars have stressed that the connection between time and politics has become especially salient in modernity. For example, Koselleck (2002) has noted that, since the late 18th century, utopian thinking shifts from a spatial to a temporal imaginary. Rather than ruminating on an elsewhere, one elaborates on an otherwise, the assumption being that tomorrow will be different from today and yesterday.

Luhmann (1976) has given an effective account of the relevance of future in modern societies. Modernity's orientation to the «new», that is to a futurity conceived as open rather than a repetition of the past, an accidental deviation from established patterns, or the end of time, creates the condition for higher complexity in the relationship with time. If future is a horizon of possibilities, the connection between «present futures» (that is, present views of potential futures) and «future presents» (that is, states of affairs brought about by the chain of events) becomes problematic. Such connection can be looser or tighter, according to different degrees of openness («futurization») and closure («defuturization»). Modernity has futurized time to unprecedented levels, which has required, for society to hold together, novel ways of controlling indeterminacy.

Defuturizing future means anticipating it. In this way, future «becomes cause and justification for some form of action in the here and now» (Anderson 2010, 778). This is not just a matter of appropriate techniques but also of political choices, as to make future actionable «certain lives may have to be abandoned, damaged or destroyed in order to protect, save or care for [more valued forms of] life» (ivi,

1. In a series of public interventions in Spring 2020 Agamben has reiterated this claim. His equalisation of the state of exception deriving from a sanitarian threat with restrictions to individual liberties justified with securitarian reasons has been heavily criticised. However, at the very least, the almost unquestioned predominance over any other value taken in the public sphere and in policy decisions by health protection and the recovery of economic growth confirms the extent to which politics has by now become *bio*politics and the polity is assimilated to a biological entity.

780).[2] In general, since future offers a surplus of possibilities, anticipation takes the form of a privative negation of some of them (Luhmann 1976, 141). Future, in short, takes political relevance as the desirability or undesirability of certain states of affairs, the need to separate promise from threat.

Since the early 19th century, probability becomes the dominant governmental way of relating with the future, in the form of its statistical anticipation – from public health to retirement pensions, to industrial accidents (Hacking 1990; Ewald 1991). The strength of this approach is that it «defuturizes the future without identifying it with only one chain of events» (Luhmann 1976, 141). This has important consequences for the allocation of responsibilities and for political legitimacy. «The present can calculate a future that can always turn out otherwise; so the present can assure itself that it calculated correctly, even if things turn out differently» (Luhmann 1998, 70). The governmental role of probability can be easily grasped when considering the way the undesired outcomes of industrialisation and innovation have been handled. If usually liability entails fault or malice and the demonstration of a causal connection between agent and event, a first approach has been to expand the role of liability without fault («strict liability»). This means one is held liable for damages without the plaintiff having to demonstrate fault or malice, the event – think of product malfunctioning – being assumed to fall within the organisational capacities of the respondent (often hardly accessible to the plaintiff), who can therefore anticipate and budget for it through probabilistic estimates and insurance. On the contrary, when for events deemed «unforeseeable», that is, eluding calculation, an exonerating clause has been systematically introduced in legislation. This is consistent with the «proactionary» underpinnings of modernity and the ensuing social order, for which the overall benefits of innovation always outperform the costs, while offloading the responsibility for unpredictable risks onto the innovators would discourage research and enterprise (Pellizzoni 2020a).

In this way political decisions concerning future are continuously legitimated, whether these opt for risk-taking or for risk-avoidance (enacting in this case preventive measures). However, the greater the reach of technology and the faster the pace of innovation, the greater the possibility that the unforeseeable and the undesirable happens. Hence the rise of «organised irresponsibility» which Ulrich Beck (1992) depicts as typical of late modern society. The flip side of organised irresponsibility is the growing role of techno-scientific expectations, as «future-oriented abstractions, […] 'generative' [in that] they guide activities, provide structure and legitimation, attract interest and foster investment» (Borup *et al.* 2006, 285-286).

2. In this sense, with reference to the Covid-19 pandemic, some commentators have raised the issue of how, to address it, other diseases, and diseased people have taken a backseat.

Beyond probabilistic prediction

The intensification of the governmental salience of uncertainty has led to a pluralisation of anticipatory frameworks beyond probabilistic prediction and its governmental correlate, «risk prevention»; frameworks which differ from one another in a number of respects, from cognitive and ontological assumptions to the implied temporal structure and model of agent (see Table 1). In Luhmann's terms, the growing pace of futurization has entailed more inventive defuturization devices, which have invested the two governmental forms that have come to dominate modernity, namely: sovereign power (the power of make die or let live), and biopower (the power of make live or let die). The first is the field of the military. As we shall see, anticipation has characterised the Cold War and, more recently, the «war on terror». The second is the field of environmental and health issues (climate change and trans-species epidemics in particular), «humanitarian wars» and the threat of bioterrorism sitting somewhat in between the two.

Table 1 **Types of anticipation**

	relation with the future	character of the threat	undesired events after action	model of agent	temporal structure	ontology
prevention	probabilistic	well-known	averted	calculative	linear	naturalist
deterrence	deterministic	well-known	looming yet deferred	bold	recursive	partly constructivist
precaution	worst case scenario building	ill-known	averted	prudent	linear	naturalist
pre-emption	incitatory	hidden	moulded and deferred	astute	recursive	fully constructivist
preparedness	vigilant	hidden	mitigated	swift	linear or recursive	naturalist or constructivist

The limits to risk calculation had begun to be acknowledged already in the 1920s, as testified by John Maynard Keynes's and Frank Knight's reflections on how economic decisions can escape probabilistic estimates, requiring subjective judgements. The primacy of probabilistic prediction, however, was seriously challenged only decades later. Hiroshima and the Cold War led to a rise in catastrophic imaginary. Building on this a new anticipatory rationale emerged: deterrence. Like pre-

vention, deterrence assumes that the world can be known in sufficient detail. Yet, while prevention assumes a linear time frame (acting now affects the future state of affairs) and conceives of the link between humans and world in a naturalist way, hence as an agent-patient relationship, with deterrence the world is not simply taken to passively react to action but is crafted according to what action needs to be effective. The process produces its own cause, nuclear annihilation being transformed from threat to actual danger (Massumi 2007). Moreover, nuclear proliferation makes the future simultaneously looming and deferred, rather than averted, as with prevention. As a result, the future backfires on the present differently from the classic performative effect of expectations. With deterrence, looking forward, towards an uncertain future, is replaced by looking backwards, from the certainty of the (catastrophic) future to the action capable of postponing it. The linear arrow of time is replaced by a recursive temporal structure.

In the 1970s the underpinnings brew of another type of anticipation: precaution. In this period, the traditional understanding of biophysical dynamics undergoes a dramatic change, from order to disorder; from complication to complexity; from linearity to inderterminacy. In ecology, the systemic equilibrium theorized by Eugene Odum's generation is replaced by a new «ecology of chaos» (Holling 1973), for which there is no spontaneous tendency to biomass stabilization or greater cohesiveness in plant and animal communities, but permanent competition, patchiness, fragmentation. Similarly, in chemistry and physics, attention focuses on «dissipative structures», thermodynamically open systems characterized by the spontaneous formation of dissymmetry and bifurcations that produce complex, sometimes chaotic, structures (Prigogine and Stengers 1979). In cybernetics, notions of homeostasis and selective openness/closure are supplanted by the idea of emergence, as underlying research on artificial intelligence (Hayles 1999). As a result, predictive knowledge based on regularities shrinks in scope and appeal. Descriptive claims dovetail with regulative ones. Predictability, order and stability are equated to entropic «heath death», while contingency, disorder and instability become synonymous with vitality and dynamism.[3]

Against this backdrop, the idea of precaution unsurprisingly gains salience in the environmental policy field, as most directly confronted with complexity. Beginning in the 1980s, declarations, codes of conduct and legislation include the precautionary principle. The conceptual foundations of the latter can be found in Hans Jonas's (1985) case for the «imperative of responsibility» based on a «heuris-

3. The links between the rise of complexity-thinking in a variety of sciences and the rise of post-Fordist capitalism and neoliberal rule, with its case against predictability and planning, are well documented (see e.g. Cooper 2008; Walker and Cooper 2011).

tics of fear». The argument is that, faced with ever-more powerful technologies, one is ethically required to deal with worst case scenarios, envisaged yet incalculable long-term effects or suddenly deflagrating ecological catastrophes. Like prevention, precaution builds on a naturalist ontology (Anderson 2010). The world is assumed to proceed «on its own», should action not take place, or to «react» to such action. And, like prevention, the temporality of precaution is linear; all the more so, as threats are usually depicted in terms of irreversible processes.

In theory, precaution expands responsibility, asking that measures capable of avoiding major damages be taken before conclusive evidence about a threat is achieved. Yet, the weakness of precaution in this regard is evident. On which basis can proportionate and timely measures be decided against the actualization of a threat, if by definition the latter's odds cannot be reliably assessed? This has been a strong argument for challenging the implementation of precaution beyond soft regulation, and a source of continuous conflict between supporters (especially the European Union) and opponents (especially the US). Precautionary arguments have actually been applied also in reverse, to defend inaction and weaken liabilities, effectively expanding «organised irresponsibility». On one side, the lesser the predictability of the events, the easier the possibility of «manufacturing uncertainty» (Michaels 2006; Oreskes and Conway 2010), that is, of stressing the controversial import of data to make a precautionary case, not against the threat but against action against the threat. Well-known examples are climate change denial and the controversies over GM crops, electromagnetic fields and a variety of chemicals. On the other side, the weaker the possibility of reconstructing causal chains, the lesser the possibility to assign liabilities (Pellizzoni 2020a).

The debate over precaution has somewhat obscured the rise of another form of anticipation, namely pre-emption, which begins to gain salience at the turn of the millennium (Kaiser 2015). The idea, in this case, is of an anticipatory action that tackles threats «before they emerge» (Bush 2002). Odd as this endeavour may seem, it becomes the linchpin of the US security strategy, underpinning the «war on terror» and the invasion of Iraq. As an anticipatory rationale pre-emption presents important novelties. With prevention and deterrence the threat is well-known. With precaution the threat is ill known, yet enough to depict its effects. With pre-emption the threat is indeterminate, as it has not emerged yet. Hence, action is «incitatory»: «Since the threat is proliferative in any case, your best option is to help make it proliferate more – that is, hopefully, more on your own terms» (Massumi 2007, § 16), seizing the opportunities created in this way. Similarly to precaution, pre-emption builds on the assumption that the course of events has to be significantly altered, «creating new facts before it is too late» (Kaiser 2015, 174). Yet, similarly to deterrence, it assumes the future actualization of the threat

and looks backwards, to what can be done to postpone it. This eliminates the possibility of proper error. On one side, being based on potential threats, action cannot be proven wrong. On the other, unintended consequences are deemed unavoidable and indeed part of the generative effect (Anderson 2010). Furthermore, and crucially, pre-emptive action engenders the reality that demonstrates such action was sound from the beginning. As G.W. Bush claimed, «some may agree with my decision to remove Saddam Hussein from power, but all of us can agree that the world's terrorists have now made Iraq a central front in the war on terror» (Massumi 2007, § 17). Thus, removing Saddam Hussein was the right thing to do, since in this way Iraq has become what justified such action. Pre-emption, therefore, is distinctively more creative than other forms of anticipation. It effectively, and more decisively than deterrence, parts company with a naturalist ontology. As knowledge and reality adjust to each other through the recursivity of time, there is no longer a division between the knowing agent and the world acted upon. Truth, therefore, becomes retroactive, in a different sense to hindsight. It is not that the past is reinterpreted in light of the present. Rather, in the foreshadowing of the future the past manifests its real features. It becomes a place where different things have happened, otherwise the threat could not have been elicited (Pellizzoni 2020b).

Finally, we have preparedness. Its rise is roughly simultaneous with that of pre-emption. Its elective field, however, is the biological rather than the warlike, public health rather than warfare, even if «infectious disease outbreak and bioterrorism [can be] treated as identical threats, in the absence of any sure means of distinguishing the two » (Cooper 2006, 113), and if the rationale of preparedness may apply just as well to natural disasters, industrial accidents, terrorist attacks of any sort and other types of emergency. Preparedness, indeed, seems to encapsulate the logic of emergency. It conveys the idea of swiftness, of a prompt responsivity to a threat that has «emergent» characters, concealing and accumulating even for long before coming to a sudden eruption. The hidden character of the threat is what preparedness shares with pre-emption. The latter is even sometimes assimilated to the operational modality of the former, to the extent that the sound way to respond to emergence is regarded to be counter-emergence (Cooper 2006). However, unlike pre-emption and the other types of anticipation discussed so far, which aim in different ways to avoid the occurrence of a certain future, the operational field of preparedness is straddling the harbingers and the aftermath of the precipitating event, its aim being to mitigate the effects of the latter.

Given this, it comes as no surprise that preparedness has been associated with resilience, the capacity of recovering after a trauma (Anderson 2010). In fact, the two governmental approaches to emergency have arisen simultaneously, though in

principle resilience should be regarded as the reciprocal of preparedness – the more effective the latter, the lesser the size of the trauma, hence the need of resilience. In any case, the event which preparedness aims to anticipate and address is usually assumed to build up «on its own». This marks another difference with pre-emption. However, we shall see that a pre-emptive logic can be found in preparedness. We shall also see that the array of techniques elicited by the latter has been, somewhat controversially, referred to a precautionary rationale. All this makes the logic of preparedness not easy to disentangle.

Interpreting preparedness

Preparedness techniques include scenario-based planning, early warning systems (sentinel devices), and medical supply stockpiling (medications, machinery, masks, vaccines etc.). These techniques were originally conceived to prepare for nuclear attack, yet in the 1990s they were extended to the threat of bioterrorism and, beginning in the 2000s, to emerging infectious diseases (Lakoff 2017). To make sense of why, one has to consider that preparedness entails a peculiar understanding of the relation between the threat and the threatened. As resilience points to a transformative adaptation, rather than the return to the original conditions, so, more than a final victory, preparedness points to developing capacities for governing a co-evolving dynamic of action and reaction, attack and counter-attack. It points to the modulation of a crisis that, more than leading to resolution, requires constant handling, subtle managerial abilities[4]. The shift from the idea of an eventual victory over infectious diseases, which had spread after the second world war, to an imagery of continuously resurgent and insurgent threats is registered in a variety of documents beginning in the 1990s (e.g. Henderson 1993; WHO 1999). Andrew Lakoff (2015) claims that the HIV/AIDS crisis was pivotal to the new imagery, the underpinnings of which reside in the growing awareness, among virologists and other specialists, of the implications of globalisation, with its intensification of people and commodity movement and of human extraction from, hence intermingling with, nature. The new outlook, however, has ostensibly to do also with the valorisation of indeterminacy as a regulative principle, which we have discussed above and of which pre-emption represents a notable offspring. If crisis cannot be avoided but only managed, a constant alertness is mandatory. Here emerge, according to Lakoff, the main differences between prepared-

4. This confirms that the idea of crisis as a decisive moment of confirmation or upheaval of the political order, typical of modernity (Koselleck and Richter 2006), is increasingly challenged by an understanding of crisis as an enduring condition from which there is no exit (see Gentili 2018).

ness and preventive approaches to public health. Building on Foucault's distinction between disciplinary and security approaches, he notes that the former «seek to restrict the circulation of a disease, isolating the sick from the healthy – as in quarantine – [while] security mechanisms allow disease to circulate but minimize its damage through collective interventions such as mass vaccination» (Lakoff 2015, 42). This entails performing probabilistic risk assessments based on actuarial devices, epidemiological data and statistical reasoning (as with the notion of «herd immunity»), according to a preventive rationale. Quite different is the approach that gains momentum in recent years. Consistently with the growing regulative role of indeterminacy, the assumption is that future is not amenable to probabilistic anticipation. One is rather to prepare for surprise. Hence the need of «vigilance», which «requires sentinel devices that can provide early warning of an encroaching danger […] in order to stimulate action when decision is imperative but knowledge is incomplete» (ivi, 6). As sentinel devices monitor «wily» threats that may come to light all of a sudden and with effects the severity of which is equally difficult to anticipate, they «are integrated into a broader system of alert-and-response, one that includes preparedness plans that instruct officials in how to respond and decision instruments that guide governmental intervention as the event unfolds» (ivi, 7). This is the approach adopted by the WHO (2008; 2009) in reply to a series of outbreaks occurred since the beginning of the new millennium (SARS, H5N1, H1N1 plus violent returns of long-present viruses such as Ebola and West Nile).

For Lakoff, «vigilance enjoins action in a precautionary mode: one must act now to interrupt the onset of a potential event or be held accountable later for the results of inaction» (2015, 45). In fact, criticisms raised against a preparedness-based action resemble those raised against precautionary approaches. In both cases the issue is the lack of proportionality of action. The 2009 H1N1 pandemic led to the search for a vaccine. Its delayed production dovetailed with evidence that H1N1 was not causing a catastrophic number of deaths. This, especially in Europe, fuelled polemic (including suspects of WHO's complicity with Big Pharma) over the amounts of money spent by state governments for massive advance purchase of eventually useless vaccines. Yet, by definition, preparedness builds on uncertainty about the severity of a threat. Cost-benefit risk assessment can be made only out of epidemiological evidence, in the lack of which one has to turn to a worst case approach. The H1N1 controversy, therefore, highlighted the clash between «two kinds of security mechanisms, one dating from the early nineteenth century and the other from the late twentieth» (Lakoff 2015, 54).

Lakoff's take on preparedness is politically neutral. In his reconstruction, it arose as a piecemeal approach to the challenges posed by the effects of globalization,

which accounts also for how preparedness remains in tension with conventional health risk management. Melinda Cooper (2006), on the contrary, sees in preparedness (and pre-emption) the governmental hallmark of neoliberal capitalism. Still different is the assessment provided by the French anthropologist Frédéric Keck.

An in-depth study of how, after the SARS outbreak in 2003, Hong Kong, Singapore, and Taiwan sought to prepare for future pandemics leads him not only to confirm the array of techniques highlighted by Lakoff (stockpiling vaccines and samples, simulating pandemics and monitoring viruses and disease vectors, for example by means of non-vaccinated chickens acting as sentinels of possible viral transmission), but to single out how, also through alliances of microbiologists, veterinarians and birdwatchers in following the mutations of flu viruses in birds and humans, the attempt to anticipate bird flu pandemics has changed the understanding and practice of interspecies relations (Keck 2020a). Contrary to Lakoff, Keck contrasts the logic of preparedness with both prevention *and* precaution. Prevention, he claims, handles an outbreak as trench warfare: you wait for the enemy and when the enemy shows up you deploy your weapons. Precaution is just an intensification of prevention, based on worst case hypotheses. Preparedness, instead, assumes that the enemy is already among us, cleverly disguised, and may show up at any time. This entails detecting the signs as early as possible (Keck 2020b). Crucially, for Keck, the two basic strategies (prevention and precaution on one side, preparedness on the other) refer to two different models of relation with nature: «pastoral» and «cynegetic». The former assumes the possibility of «overseeing» the situation, which may lead to erecting barriers and cutting connections (as with the killing of millions of birds or pigs to eradicate an outbreak). The latter, typical of hunters-gatherers, assumes the need to enter into a close, mimetic relationship with animals, seeking to see the world from their perspective. This is the logic of the sentinel; a logic which, according to Keck, is at odds with the divide between nature and society typical of western naturalism. For him, therefore, «the notion of sentinel can be the opportunity for a more equitable relation between humans and non-humans» (Keck 2020b, 6).

Two points are especially noteworthy, in Keck's account. First, he affiliates the logic of precaution to prevention rather than preparedness, as Lakoff does. This divergence highlights the ambiguity of the latter, which is reflected in the array of techniques elicited. Scenario building and stockpiling of medical supply, in fact, follow a precautionary rationale, insofar as they seek to devise and address the worst case. The same applies to lockdown measures, while the old disciplinary logic peeps out in quarantine obligations. Sentinel devices, instead, follow a surveillance rationale, to which other techniques, being vigilance the distinctive logic of

preparedness, are made subservient. This is explained by the peculiar timescape of preparedness. As Lakoff notes, «the duration of intensive response by a preparedness apparatus is limited to the immediate onset and aftermath of crisis, but the requirement of vigilant attention to the prospect of catastrophe is ongoing» (2017, 20). This effectively challenges the linear temporality of prevention and precaution, as in preparedness past occurrences, present risks and future dangers «are not considered distinct and sequential events […] but as simultaneous events brought into coexistence» (Samimian-Darash 2011, 942).

Second noteworthy point is that Keck sees in the surveillance element of preparedness the sign of an overcoming of the nature/society divide towards a rebalancing of the relation with the more-than-human world, the urgency of which is signalled by the intensification of outbreaks. In this way Keck aligns with a growing scholarship which pleads for an overcoming of western ontological dualisms (human/nonhuman, nature/technology, living/non-living, matter/information etc.). A scholarship that, through expressions such as «intrusion of Gaia» (Stengers 2017) or «geopower» (Grosz 2011; Povinelli 2016), makes a case for the acknowledgment of planetary dynamics at a variety of scales as invading the political domain, questioning the dominative orientation inherent in dualist ontologies and asking for a humbler, caring attitude (Puig de la Bellacasa 2017); a grounding of politics on trial and error, flexibility, an «ongoing creative experimentation» (Clark and Yusoff 2017, 18) that affects at once social and socio-ecological relations.

As I have argued elsewhere (Pellizzoni 2016; 2020b), however, the non-dominative implications of this move are hardly warranted. Experimental, trial-and-error politics is the bread and butter of neoliberal governmentality, which has been consistently celebrating uncertainty, danger, insecurity, volatility, disorder and non-predictive decision-making as «at the heart of what is positive and constructive» (O'Malley 2010, 502). Moreover, naturalism is hardly anymore the only, or maybe even the dominant, outlook on reality. In a variety of fields, from chemistry to life sciences and cybernetics, ontological boundaries are becoming evermore porous or just blurred (Coole and Frost 2010). Yet, anti-naturalism is perfectly compatible with business-as-usual in the attitude towards the world. A case in point is «ecomodernism», with its plea for a technology-enabled intensification of farming, energy extraction, forestry, settlement and other activities, in order to decouple society from its biophysical underpinnings while pre-empting any distinction between the natural and the technical; all this to relaunch capitalism and growth (Breakthrough Institute 2015).

Consider also that the crucial element of preparedness, vigilance, points to an intensification of the securitization of life, which represents the hallmark of the neoliberal attempt to replace politics with police order, administration of the real

according to the «there is no alternative» mantra, effectively extending it to the human-nonhuman relations. Finally, consider that preparedness can be applied according to a pre-emptive rationale. This is testified by so-called «gain of function» research, which means modifying viruses to explore their potential virulence or transmissibility. This happened with H1N1 when it «deflated» as a pandemic. Controversy over the assessment of the potential costs and benefits of such research – on one side possible catastrophic harm if the virus escaped confinement; on the other the opportunity of creating «a molecular sentinel device, telling virus trackers what they should be looking for in the wild» (Lakoff 2017, 121) – finds a correspondence in the debate over the origin of Covid-19. These controversies are bound to intensify: the more refined the intervention on viruses becomes, the more contentious will be the distinction between the «natural» and the «artefactual», pre-empting any «proof», precisely as it happens with genetically modified organisms in agriculture. Ag-biotech companies have been claiming for years that they do just what nature always did, «the 'technology' in the[ir] practices [being] nothing more than biology itself, or 'life itself'» (Thacker 2007, xix). In this way, the past and the future of farming, viruses and virtually anything on the planet are realigned with the techno-capitalist present, pre-empting any meaning, before any possibility, of change.

Conclusion

«How did the norm of preparedness come to structure expert thought and action concerning the future of infectious disease?» asks Lakoff (2017, 12). His reply, as those provided by Keck and other scholars, is insightful. However, as I tried to show, to make full sense of the stakes implied in the rise of preparedness one has to consider its consistency with the governmental logic that has come to dominate late modernity. As a way of «governing through time» (Samimian-Darash 2011, 942), preparedness follows the same non-linear logic of realignment of past, present and future found in pre-emption. This may make the former a mere declension of the latter, rather than an alternative type of anticipation.

Claiming, as Keck does, that preparedness promotes a less predatory relationship with nature is probably running too fast. Growing intimacy and mimesis with the more-than-human world does not warrant against the continuation, or intensification, of an aggressive, dominative relationship. Techniques like sentinel devices take a different meaning if the agent to which the sentinel reports is not the hunter-gatherer but the *homo oeconomicus*, that is, someone devoid of any sense of limit to acquisition. On this view, the need to learn to «live with» Covid-19 and the infectious diseases expected for the future, which powers and authorities of any

sort have been quick to claim, hardly corresponds to a plea for a caring, non-exploitative attitude. It rather corresponds to the assumption that the capitalist system is to get along at any price.

The task ahead is to understand what it means and entails, in political terms, to acknowledge that insurgent pandemics are major signals of an ever-more unsustainable societal organisation, and whether preparedness can be – and perhaps in some «prefigurative» experiences at the margins of the global (dis)order is already (see e.g. Centemeri 2018) – oriented in an opposite direction to that of pre-empting any residual distinctness between capitalism and the world, and with it any possible change, which seems to be an ever-strengthening governmental orientation. This calls sociology, and the other social sciences, to a sustained theoretical and empirical work.

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