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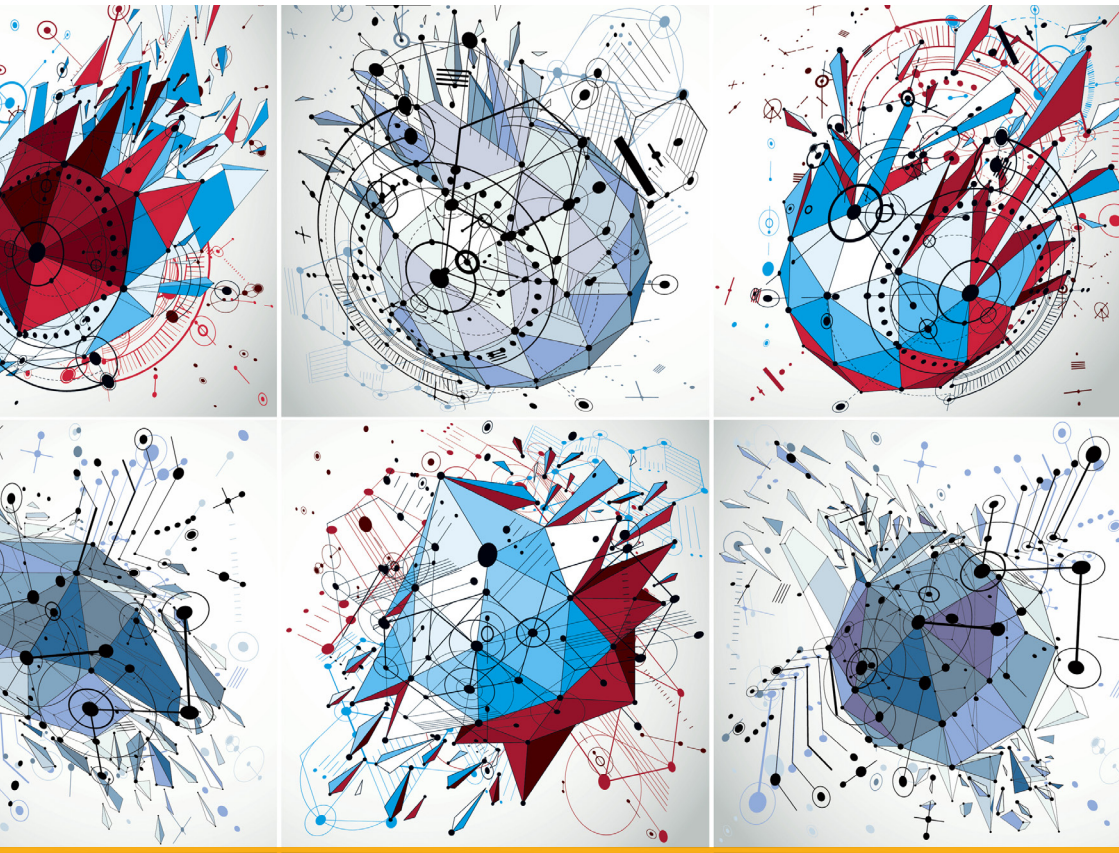

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TABLE OF CONTENT

INTRODUCTION

Since the 9/11 attacks, *preparedness* has become the dominant way of thinking about domestic security in the United States (and arguably, elsewhere). This emerging form of "security rationality", caused by a growing sense of a future plagued by unanticipated threats, (Lakoff 2007) has resulted in a variety of related activities. In order to foster a "prepared nation" ready to face deep uncertainties, laws have been passed, institutions have been created, and preparedness, as a dominant paradigm and as a set of practices, has been organized, promoted and diffused across society. In the process, an increasing range of social activities and "social worlds" (Becker 1984), such as public health, have been reconfigured in order to incorporate preparedness principles.

This dynamic has been analyzed in different ways. Besides rather technical literature mainly concerned with refining preparedness concepts and practices, more critical scholars have located this phenomenon within a broader societal shift, which involves a transforming relationship with the future (see for instance: Anderson 2010). Preparedness, it is said, is coincident with a shift in the perception of the future in Western (post)industrial democracies, from one of risk, linked to the "insurance" society (Beck 1992), towards one of uncertainty or even *threat*. This shift entails important consequences. Indeed, while the idea of risk tends to present the future as a development of current trends, the idea of uncertainty generates a perception of the future as a radical discontinuity (Zylberman 2013). Whereas in risk thinking the future can still be related to probabilities, uncertainty dissolves this relationship. In this context, an uncertain future (as it is conceived) is only amenable to anticipation through approaches that replace probabilistic thinking, tied to a statistical approach to possible detrimental events, by "possibilistic thinking", which speculates on

scenarios no matter the probability of their occurrence (see Clarke 2006; for a critic of this position see: Furedi 2009). Consequently, in the context of preparedness, only "worst case" possibilities are rationally worth considering, since only they can help prepare for *any kind of threat*.

This orientation toward a future brimming with fears and dangers is vividly exemplified by two of the main techniques implemented to organize preparedness: scenario planning and exercises. Our main hypothesis is that these tools are critical to preparedness, in ways that have not yet been adequately investigated. In developing our argument, we hope to address this gap by focusing on the role scenarios and exercises play in organizing security. Although preparedness systems have proliferated at a global level, our scope will be limited to the U.S. for two reasons: first, because it is arguably where preparedness, as a form of rationality and technique of risk governmentality, first emerged before diffusing elsewhere, notably within international organizations. Second, because the U.S. preparedness system is the most developed, by far.

A. Lakoff (2008a) posits that scenarios have a dual function: they are used to raise the awareness of officials in order to sensitize them to the necessity of preparedness, and they function as benchmarking tools for preparedness apparatuses. We hope to show that, together with exercises, they have a third, more fundamental function: that of repatriating future threats in the present, in order to organize preparedness. To make this point, we will begin by tracing how preparedness, by stretching the definition of "national security," extended its realm to previously unrelated social domains, as a new, dominant, paradigm of government. Consistent with our own research, we will trace this process in the domain of public health, which is being reconfigured by preparedness practices in the United States. This will provide an empirical case to flesh-out our analysis. We will then proceed to show that preparedness is best understood as an ongoing *organizing process*, which continuously rearticulates actors and institutions, practices, and resources according to shifting knowledge of actual threats. In this

context, we will focus more specifically on the genealogy of scenarios and exercises. As our main hypothesis, we will then propose that both these "techniques of preparedness" (Lakoff 2006), implemented in order to govern uncertainty, can be conceptualized as "presenting" devices: practices that shift the future into the present and thus make it amenable to preparedness practices.

PANDEMIC PLANNING AND PREPAREDNESS

THE EMERGENCE OF BIOSECURITY

In the early 1990s, a new discourse was mounting among prominent U.S. public health experts, revolving around the issue of emerging and re-emerging infectious diseases (EIDs). It was becoming increasingly clear that hopes of overcoming microbial pathologies, which had become prevalent after the discovery of antibiotics in the 1940s and the successful eradication of smallpox in 1980, had been highly presumptuous (Washer 2010; King 2002). This new focus on microbial resurgence shed new light on public health, which by then was a divested domain (Zylberman 2013). Microbes appeared again as a credible threat and as a major source of uncertainty. This shift in perception gradually brought public health closer to national security issues, as evidenced by the U.S. Institute of Medicine's 1992 report "Emerging infections: Microbial threats to health in the United States" (IOM 1992), followed in 1997 by: "America's Vital Interest in Global Health: Protecting Our People, Enhancing Our Economy, and Advancing Our International Interests" (IOM 1997). This was clear also in the Clinton administration's declaration of AIDS as a threat to security, and by the appointment of the National Security Council to assess the U.S. government's efforts to fight the pandemic overseas in 2000 (Washington Post, April 30, 2000). As quoted by L. Fearnley, Clinton could thus write in Presidential Decision Directive NSTC-7 Bill "that the national and international system of infectious disease surveillance, prevention, and response is inadequate to protect the health of the United States citizens from emerging infectious diseases". In 2001, the United Nations Security Council and

General assembly embraced the topic, as did the British parliament (Singer 2002) showing that the move exceeded U.S. domestic politics and policy making arenas.

This tentative blending of public health and national security was somehow validated and reinforced with the 2001 anthrax letters episode in the United States, which resulted in concretizing experts' fear (which had emerged back in the 1990s) of seeing a convergence between new forms of terrorisms and the "growing availability of unconventional weapons […]" (Schoch-Spana 2004). Bioterror by non-state actors was not confined to worried experts' speculations anymore: it was now reality, giving weigh to their arguments. Thus, common ground was emerging between public health and security experts: for public health lobbyists, this new discourse provided new opportunities. Indeed the emerging infectious diseases (EIDs) "world view" (King 2002) had allowed concerned health practitioners to push for renewed investments in public health programs and infrastructures. The rising concern with bioterrorism continued this trend as it gave way to a growing consensus that reinforcing public health infrastructures would also improve U.S. capacities to fight against biological weapons, and vice versa. It provided intersecting interests between public health experts in need of arguments to advocate for reinvestments in public health, and domestic security experts. In 2002, this new orientation was given a legal basis with the passing of the Public Health Security and Bioterrorism Act. This institutionalization trajectory was then extended by the passing of the Pandemic and All-hazard Preparedness Act (PAHPA) in 2006, and of the) of 2013. At another level, a set of new biosecurity practices and institutions were also consolidating: a biodefense program was funded in 2003 by the congress, which created bioshield, a research and development program aiming at developing countermeasures against biological attacks, biowatch, a national network of pathogen detectors, and biosense which was to integrate existing syndromic surveillance systems (Fearnley, 2008; Fidler & Gostin, 2008).

FROM BIOTERROR TO PANDEMIC INFLUENZA: "ALL-HAZARDS" PREPAREDNESS AND "WORST CASE SCENARIOS"

This reconceptualization of public health in the terms of biosecurity was performed in parallel with other developments in the U.S. domestic security apparatus. As a reaction to the 9/11 attacks, the Bush administration created the Department of Homeland Security (DHS) in 2002. The new department brought together branches that were previously scattered in other departments such as the National Biological Warfare (formerly a Department of Defense agency), the National Preparedness Office (formerly a joint FBI and Federal Emergency Management Agency [FEMA] institution), the Office for Domestic Preparedness (removed from the Department of Justice and FEMA), and the National Stockpile from the Department of Health[1]. The department took responsibility for National Preparedness, in line with the requirements of the "Homeland Security Presidential Directive HSPD-8" issued in December 2003. In doing so, it inherited the "all-hazards" planning approach developed by FEMA since its creation in the late 1970s. This approach toward emergency management places man-made catastrophes (initially through a focus on nuclear related hazards during the Cold War) and natural disasters within the same response framework, as it insists on similarities rather than singularities between seemingly heterogeneous events (Lakoff 2006; Quarantelli 1991; Perrow 2007, p. 49). In this context, public health not only entered the domain of the "Homeland Security Enterprise" through an unprecedented concern for bioterror, but also through a concern for pandemics, which in the EID discourse, was being re-defined as a mixed kind of disaster, combining man-made and natural causes, to the extent that (re)-emerging infectious diseases appeared to be explained for a good part by environmental transformations induced by human activities.

[1] For a detailed review of the creation of DHS, see: Perrow, 2007.

Pandemic planning was not new however: it had been taking place in the U.S. since the first pandemic plan, drafted in 1978, as a consequence of the 1976 swine flu outbreak, whose management had been deemed a failure (Iskander et al. 2013). But the emergence of H5N1 in 1997 and the SARS epidemic in 2002 fuelled a growing concern for a "coming plague"[2] of apocalyptic size, drawing on memories of the 1918 influenza pandemic and its devastating death toll (Figuié 2013). Therefore, it comes as no surprise that, when the DHS drafted its first national planning scenarios in 2006, pandemic influenza was one of the fifteen threats identified in order to organize National Preparedness (DHS 2006). Moreover, it is not surprising that public health preparedness was defined as one of the eight national priorities in the Department of Homeland Security's National Preparedness Guidelines (DHS 2007). Consequently, public health was reframed according to this new relationship with preparedness.

This short history establishes the relationship between public health and preparedness Yet, it leaves open an important question: what does the latter actually stand for?

As noted by Lakoff, "all-hazards" planning can be identified as the cognitive shift which opened up the conceptual space for preparedness, as a then cohering organizational framework: "what was forged through the consolidation of multiple forms of disaster planning under the all-hazards rubric was not only a set of techniques and protocols, but also a shared ethos: the injunction to be prepared." (2006: 270) The all-hazards paradigm thus promoted a specific orientation to the future, seen as full of pending, unforeseeable, disasters. Preparedness inherited this orientation. In the U.S. disaster management community and the U.S. security enterprise, the future has thus been culturally framed as a dystopian

[2] This was part of the title of an influential essay written by Laurie Garrett, which contributed to heightening the fear of elite politicians and citizens alike.

space[3]. In this cognitive context, in order to enforce national security, means of anticipating these coming catastrophes needed? to be imagined and organized. This stream of thought opened the way to the development of a type of anticipation relying on scenario planning, based on a "worst case" imaginative regime. A look at the National Strategy for Pandemic Influenza Implementation Plan (HSC 2007) is telling in this respect: it estimates that an influenza pandemic could cause up to 90 million infections in the U.S. alone, with a death toll possibly as high as 2 million, a highly disputable figure[4]. As iterative catastrophes keep on occurring, unanticipated by probabilistic forecasts (think of the Three Miles Island nuclear plant meltdown as a timely example), societal resilience, defined as the ability to preserve society's core mechanisms against any catastrophic event (Nelson 2014), is increasingly viewed as dependent on the ability to plan for the unthinkable. Emergency planning then comes to rely less on the mapping of probabilities and a focus on likely events than on calibrating response capabilities against the worst possible catastrophes, no matter how unlikely they are. Further, this conceptual trajectory has brought scenario development to the fore within the U.S. preparedness apparatus, thus contributing to frame preparedness as a form or organization, which we now need to explore in more detail.

[3] For further details about the idea of the future as a cultural fact, which includes imaginative forms, anticipation regimes, and cultural aspirations, see: Appadurai, 1996.

[4] For instance, Peter Doherty, winner of the Nobel Prize of Medicine in 1996 for his work on the immune system, has criticized these assumptions as being overstated (see also: Zylberman, 2013; Furedi, 2009).

PREPAREDNESS AS AN ORGANIZING PROCESS

THE SEQUENTIAL ORGANIZATION OF PREPAREDNESS

In the aftermath of the 2009 H1N1 pandemic, the U.S. Department of Health and Human Services (HHS) ordered an after-action report, aimed at drawing lessons from the management of the sanitary crisis by its services. In 2012, the department released two documents: An HHS Retrospective on the 2009 H1N1 Influenza Pandemic to Advance all Hazards Preparedness (HHS 2012), and the 2009 H1N1 Influenza Improvement Plan (HHS 2012). In her introductory statement to the latter, Kathleen Sebelius, then Secretary of Health and Human Services, wrote that "preparedness is a process, not an end-state". This wording is a widespread motto in the preparedness community. It is interesting because it draws our attention to a critical dimension of preparedness: its temporal framing. Sebelius' statement thus invites us to think of preparedness organizations not as a set of coordinated and hierarchized bodies, practices, capacities, norms and rules etc. - that is a stabilized organization -; by insisting on its processual quality, it invites us instead to conceive of preparedness as an ongoing organizing process.

Of course, looking at the organizational dimension of preparedness is not new: for instance, S. J. Collier and A. Lakoff have discussed its spatial dimensions (Collier & Lakoff 2008); A. Lakoff has also analyzed the conceptual and functional relationships between preparedness and "vital systems security" (Lakoff 2008b); K. Barker has outlined the performative effect of preparedness in scaling and producing the 2009 H1N1 crisis (Barker 2012). However, to the best of our knowledge, this organizational dimensions

has not been assessed in terms of processuality. And yet, considered this way, the recent history of preparedness shows interesting features.

After an audit of the 9/11 events, President Bush released a key document in 2002 titled Securing the Homeland, Strengthening the Nation, which placed national security at the center-stage of the national political agenda, making national preparedness a critical policy issue. This move prompted an unprecedented reorganization of preparedness activities, previously scattered among territorial jurisdictions and federal agencies (Tierney et al. 2001, pp. 63-68). In 2003, Homeland Security Presidential Directives HSPD-5 on the Management of Domestic Incidents, HSPD-7 on Critical Infrastructure Identification, Prioritization, and Protection, and HSPD-8 on National Preparedness, laid the juridical ground for the development of an integrated system of National Preparedness. In 2002, the first National Strategy for Homeland Security was released, which served as a basis for the Interim Preparedness Goal (2005). As stated in HSPD-8, "The national preparedness goal will establish measureable readiness priorities and targets that appropriately balance the potential threat and magnitude of terrorist attacks, major disasters, and other emergencies with the resources required to prevent, respond to, and recover from them." Also planned in HSPD-8, the National Incident Management System (known as NIMS) (DHS 2004a), and the National Response Plan (NRP) (DHS 2004b), were both released in 2004 by the newly created DHS (Lester and Krejci 2007). Preparedness was thus given a new juridical framework, synthetic objectives, and integrated organizational templates.

HSPD-8 also mandated the creation and implementation of metrics and routine assessment processes that would assess the progresses of national preparedness, and keep the National Preparedness System up-to-date with shifting threats. These procedures institutionalized development cycles punctuated by regular reassessment of both the "threats landscape" and preparedness practices, giving way to regular revisions of preparedness goals and preparedness organizational models. A recursive "learning

and improve mechanism" was thus embedded in the system in order to keep it current: accordingly, in December 2005, a draft National Preparedness Goal (DHS 2005) was issued, refining the Interim Goal (Caudle, 2012). In 2007, the redefinition of the National Strategy for Homeland Security (HSC 2007) by the Homeland Security Council coincided with the publication of the National Preparedness Guidelines (DHS 2007). In 2011, then under President Obama, Presidential Policy Directive (PPD-8) on National Preparedness superseded HSPD-8 and made yet again provisions for the re-formulation of a National Preparedness Goal (DHS 2011) consistent with the White House's newest revision of the National Security Strategy, released in 2010. "The Goal", as it is now referred, was released in 2011 in conformity with the requirements of PPD-8. As stated in the document, the goal assigned to national preparedness is now to ensure "a secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk" (p.1). In the meantime, NIMS was revised in 2008 (DHS 2008). The same year NRP was replaced by the National Response Framework (NRF) (DHS 2008), whose second edition was released in 2013 (DHS 2013), based on the new requirements of PPD-8.

More broadly, PPD-8 aimed at enhancing the integration of National Preparedness by ordering the constitution of a National Preparedness System that would rely conceptually on a decompartmentalized "all-of-nation", "capabilities-based", "all-hazard" approach. The directive also stressed the necessity to enhance feedback mechanisms in order to evaluate and revise preparedness apparatuses at all levels. This evaluation process included the production of a National Preparedness Report, due to be submitted to President Obama through the Assistant for Homeland Security and Counterterrorism within a year of the promulgation of the Presidential Directive, and to be re-iterated annually. Conversely, PDD-8 and following restructuration in the "Homeland Security Enterprise" (NRF, "the Goal") were themselves consequences of the reformulation of the National Strategy, in 2010, and of the

release of the Homeland Security Review Report later the same year, both illustrating the institutionalization of lessons learned and after-action reports in the ordinary development of preparedness. They were also framed by the findings of the Strategic National Risk Assessment (SNRA), a partly classified interagency risk assessment conducted in 2011, which aimed at reassessing current threats in order to drive coming reorganizations in the preparedness system.

What we see, when putting these sequential developments together, is the institutionalization of an organizing process dependent on orderly temporal sequences. Regular situational assessments (e.g., SNRA) give way to the formulation of strategic goals and concepts, and to the establishment of a related preparedness doctrine, which are then used to set new goals for national preparedness (e.g., the Goal), allowing for the reorganization of preparedness practices, capabilities, and implementation frameworks (NRF, NIMS).

In the same spirit, pandemic preparedness is founded on a situational appraisal, which relates simultaneously to the memory of past events (the "Spanish flu" of 1918, and SARS, among others), to current threats (H5N1), and to the anticipation of future threats (a new strain of H5N1 turning into a full-fledged pandemic, bioterrorist acts, etc.). Thus, the Homeland Security Council released its "National Strategy for Pandemic Influenza" in 2005 (HSC 2005), the same year that the HHS published its latest Pandemic Influenza Plan (HHS 2005). In 2006, the HSC released its National Strategy for Pandemic Influenza: Implementation Plan (HSC 2006) and a year later, a new document assessing this implementation process titled National Strategy for Pandemic Influenza: Implementation Plan One Year Summary (HSC 2007). Appointed by HSC as the leading player for the medical response in case of an influenza pandemic, the HHS followed the same type of defining-learning-refining process, as its pandemic response plan of 2005 is now being revised in order to draw lessons from the 2009 H1N1 episode. As these iterative organizational acts constantly transform the preparedness system, juridical adjustments

also become necessary to keep preparedness laws consistent with current practices, as is visible in the superseding of HSPD-8 by PPD-8, and of PAHPA by PAHPRA in 2013.

TEMPORALIZING PREPAREDNESS

As it is now apparent, the "U.S. national preparedness enterprise" has many components, which are temporally articulated within an orderly organizing process; feedback is institutionalized between situational assessments, strategic options, juridical frameworks, national preparedness goals, practices and capabilities, and, finally, exercises and lesson-learned procedures. However, if this temporality structures the organizing process, preparedness, as a practice, is also concerned with time frames, as it is constantly drawing links between current, past and future events. Let us now turn to this aspect.

What we have called "situational assessments" appear as a cornerstone of preparedness to the extent that it is used to define its strategic orientations. It has in fact two sides: on one hand, it is concerned with characterizing the current "threat landscape"; on the other hand, this landscape can only be defined on the condition that national vulnerabilities are mapped: as stated in PPD-8, "the national preparedness goal shall be informed by the risk of specific threats and vulnerabilities." In order to identify threats and vulnerabilities, two paths are thus possible. First, it can be a matter of "real life" lessons imposed by contingent events: 9/11 or hurricane Katrina acted in this respect as powerful reminders of "hidden" vulnerabilities and un-anticipated threats. Second, threats and vulnerabilities are detected through the use of "imaginative enactments" (Lakoff 2008) and exercises. "Worst case scenarios" help design stress tests that simulate "low probability-high consequences" events, revealing new flaws in preparedness plans. Both of these "events" (real or simulated) are then analyzed retrospectively, through lessons learned procedures that draw inputs from both real catastrophes and exercises in order to fine-tune preparedness organizational frameworks and practices.

Thus, lessons learned are strategic sites of situational assessment (along with other forms of appraisals, such as the SNRA). As such, they are not only concerned with past experiences: they have an immediate relationship to the current situation, as an object of future improvements. The document, An HHS Retrospective on the 2009 H1N1Influenza Pandemic to Advance all Hazards Preparedness, is sufficiently clear on that matter. The document is organized along pandemic response domains – surveillance, mitigation, vaccination, communication, and education. For each of these topics, actual practices are indeed evaluated retrospectively. In addition, at the end of each chapter, successes are identified and "opportunities for improvement" are listed, which are further elaborated in the HHS' 2009 H1N1 Influenza Improvement Plan. Therefore, if lessons learned are always retrospective, they are also simultaneously informed by an immediate concern with a current situation and the future.

Thus, at the center of the organizing process of preparedness, we find two different layers of temporality which are interlaced and are constitutive of situational assessment, and hereafter, of related reorganizations: first, a backward look, which aims at drawing lessons from real life events and exercises, as is the case for the recursive perspective of the lesson learned processes. Second, a forward look, which aims at circumventing uncertainty[5] : we would like to focus on the latter by looking at both scenario planning and exercises as "future making" devices used for planning purposes, which allow for benchmarking preparedness organization against their narratives. In doing so, we hope to show that both these practices constitute a specific technique of preparedness, which is used to repatriate the future in the present, in order to make uncertainty amenable to mitigation activities.

[5] Ethnographic work will necessarily include another temporality, namely the present, where these evaluation practices and these backward and forward looks take place. This would allow to decipher how these three temporalities are articulated to frame actual organizing acts.

NATIONAL PLANNING SCENARIOS AND NATIONAL EXERCISE PROGRAM

A BRIEF HISTORY OF PREPAREDNESS EXERCISES…

FEMA has been organizing emergency exercises since its creation in 1979. After the bombing of the Alfred Murrah federal building in Oklahoma City in 1998, the Senate Committee on Appropriations voted a new act[6] which commended that an exercise of national scope be organized in order to prepare the country for a terrorist attack (Petersen et al. 2008). This act led to the organization of the first Top Officials exercise in May 2000. TOPOFF 1, as it was labeled, gathered 3000 civil servants in Portsmouth, New Hampshire, and 2500 more in Denver, Colorado, under the supervision of the Department of Justice. Aiming at evaluating the threat posed by a chemical, biological, radiological, and nuclear (CBRN) attack, the exercise simulated a bacteriological attack using plague bacillus at Denver Opera, and a mustard gas attack in Portsmouth. While the latter case was handled efficiently, the plague epidemic quickly spiraled out of control. Despite the actual value of the exercise – it has been criticized for its "worst case" hypothesis - its unfolding revealed deep communication flaws, organizational inconsistencies, and information bottlenecks in the response structure (for a detailed account see: Zylberman 2013: 161-164).

In 2002, the *National Strategy for Homeland Security* mandated that the DHS create a centralized National Exercise Program, with national level exercises to be repeated at least every two years. The

[6] P.L. 104-201, Title 14, 110 Stat. 2714, 50 U.S.C. 2301

need for training and exercises was also stressed in HSPD-8 in 2004, with a call to "establish a national program and a multi-year planning system to conduct homeland security preparedness-related exercises that reinforces training standards, provides for evaluation of readiness" (HSPD-8, cited in: Petersen et al. 2008). In 2003, TOPOFF 2 was organized under the joint responsibility of the Department of Justice and FEMA. TOPOFF 3 and 4 took place in 2005 and 2007, respectively. Now under the umbrella of DHS, each exercise has grown in complexity and involves more actors across more jurisdictions, including international partners. TOPOFF 2 and 3 tested Public Health Emergency Preparedness (PHEP) under the dominant rubric of bioterror, with a scenario involving the release of a biological agent.

Public health preparedness was specifically targeted by other exercises (apart from the TOPOFF cycle), which aimed at raising awareness of the bioterrorist threat *per se*, both among the public and within the government. In 1989, an initial exercise was organized in Honolulu, simulating an outbreak of Ebola. This exercise, which revealed the poor preparation of public health systems, was instrumental in framing the EID world view and in promoting bioterrorism as a central security issue (for more detailed accounts, see: Lakoff 2008a; Zylberman 2013). In June 2001, the John Hopkins Center for Civilian Biodefense Strategies, the Center for Strategic and International Studies, the Analytic Service Institute for Homeland Security, and the Oklahoma Memorial Institute for the Prevention of Terrorism jointly organized "Dark Winter", a tabletop exercise simulating a terrorist attack involving a militarized strain of smallpox (see: O'Toole et al. 2002; and for a critical account of the exercise see: Barrett 2006). It was followed by a sequel exercise, "Atlantic Storm," in January 2005. The simulation was co-organized by the Center for Biosecurity of the University of Pittsburg Medical Center, the Center for Transatlantic Relations of John Hopkins University, and the Transatlantic Biosecurity Network. The plot combined simultaneous biological attacks in several cities (Frankfurt, Warsaw, Rotterdam, New York, and Los Angeles), again involving smallpox. The crisis involved top

political leaders in several countries, embodied by experienced political figures from the involved nations, and was managed as an international crisis.

These types of exercises are closely related with the development of "worst case" scenarios. Yet, it did not have to be so: if exercises are always future-oriented, the future could also be viewed in terms of classical risk, seeking to simulate the more likely threats. The intersection between exercises and scenario planning thus reveals the rise of a cultural relationship to the future where it is conceptualized in terms of disruptions, discontinuities, and irreversibility, thus becoming less amenable to probabilistic planning (Clarke, 2006). Therefore, the challenge for us is to understand the cultural conditions under which scenario planning comes to be seen as relevant for emergency management.

…AND THE RISE OF SCENARIOS AS "FUTURE MAKING" PRACTICES

After World War II, "future" thinking began to emerge as a strategic planning tool. The concept was first developed by Hermann Kahn from the Rand Corporation, who tried to imagine scenarios and strategies related to the nuclear tensions of the Cold War. Kahn later founded the Hudson Institute (1961), a think tank where he developed his ideas. Earlier In 1947, the Stanford Research Institute (SRI) was created at Stanford University, where scenarios were developed in order to sort out "plausible futures" for long-term planning purpose, notably on behalf of the Office of Education, and later of the Environmental Agency. Scenario planning then spread among corporations, where it was used as part of strategic planning. Royal Dutch Shell, under the impetus of its head of business environment division, Pierre Wack, was the first corporation to develop consistent scenario planning methodologies. This approach seemed successful, as Shell was able to anticipate the oil shocks of the 1970s. As a result, companies began to adopt the concept as a strategic planning tool (Ringland 1998; Huss 1988).

In the disaster management community, we find a first attempt at importing these methodologies in a book by Neil J.Ericksen titled Scenario Methodology in Natural Hazards Research (Ericksen 1975). In his conclusion, the author mentions two benefits for agencies adopting this type of forecasting practice: a shift toward a "worst case scenario" thinking which would broaden the scope of disaster mitigation policies, and the creation of an efficient public communication tool, using vivid, credible, and thrilling narratives. As related in a paper by D. Alexander (Alexander 2000), scenario planning has thereafter been used, for instance, to anticipate seismic events. Other scenarios were developed in relation to climate change, such as those plotted by the "apple fritters" scenario planning group who worked on proposals and recommendations to mitigate New York City's exposure to climate change (Tusa et al. 1996). However, according to Lakoff, the use of scenarios as emergency management techniques in public health preparedness was introduced by Robert H Kupperman. As a former Assistant Director of Nixon's, at the Office of Emergency Preparedness, he then developed scenario planning in the Center for Strategic and International Studies (CSIS), a think tank which was later actively involved in designing the "Dark Winter" scenario (Lakoff 2008a: 410-11).

Subsequent to 9/11, a deep sense of uncertainty developed across the world. The fact that these attacks had been possible at all and that the "unthinkable" had actually occurred was blamed on "a failure of the imagination" (9/11 Commission: p. 304, cit. in Goede 2008), pushing scenario planning to the fore of the reorganization process of the U.S. preparedness apparatus. Consistently, the 2002 National Strategy called for a greater emphasis on catastrophic threats entailing "the greatest risk of mass casualties, massive property loss, and immense social disruption." HSPD-8 annex 1 thus commanded that National Planning Scenarios be developed and revised on a biennial basis. In order to respond to this request, the National Security Council (NSC) coordinated the development of National Planning Scenarios. Fifteen scenarios were drafted and submitted in 2006. The DHS was given respon-

sibility for maintaining and updating the National Planning Scenario portfolio. In 2007, the National Preparedness Guidelines, defined National Planning Scenarios as one of the four pillars of National Preparedness. In 2008, FEMA issued the National Exercise Program Implementation Plan (FEMA 2008), where exercises are requested to be based on the "response requirements of one of 15 National Planning Scenarios (NPS)" (Petersen et al. 2008: 12).

The relationship between exercises and scenarios as "techniques of preparedness" was thus institutionalized. This "fictionalization" of strategic planning (Zylberman 2010), marked by an acute consciousness of being confronted with "fragile futures" (Strathern 2005), was reinforced with the release of PPD-8 in 2011. While HSPD-8 annex 1 explicitly demanded that national scenarios be focused on the most dangerous and the most likely threats, PPD-8 shifted their focus to the incidents identified as posing the greatest risk to the nation's security. Craig Fugate, the administrator of FEMA, refers to these incidences, which have the capacity to overwhelm all U.S. countermeasures, as "meta scenarios" (Caudle, 2012). Thus, it was hoped that focusing on these risks would stress and strengthen their surge capacity.

Exercises and scenarios have thus become strategic techniques for managing uncertainty, and their organization has grown in complexity. In the latest National Exercise Program (NEP) (FEMA 2011a), exercises are distributed across every governmental scale (from federal institutions to the individual citizen) and are held on a regular basis. Following TOPOFF exercises held in 2009, National Level Exercises (now termed Capstone exercises) have been implemented in 2011 and 2012. A new exercise is planned for 2014. Likewise, scenarios have grown in scope. Besides narratives aiming at benchmarking specific capabilities, such as the anthrax attack or the influenza pandemic plotted in the 2006 National Planning Scenarios, FEMA has now engaged in long-term scenario planning. In 2010, the agency launched the Strategic Foresight Initiative (SFI), gathering a broad set of actors from the

"whole community" who worked together to draft scenarios spanning until 2030. The aim is to achieve "An emergency management community prepared for whatever challenges the future holds; and a common sense of direction and urgency to drive action toward meeting our shared future needs – starting today" (FEMA 2012: V).

These latest developments show the emergence of what we could term "meta scenarios": differing from Fugate's meaning, they refer to far-reaching anticipations that provide a context for more limited crisis simulation narratives. What is most significant here is the growing presence of the future in current planning practices, and the ever more sophisticated techniques used to make the future present, in order to realize preparedness as an organizing process (for further details see: Tyszkiewicz et al. 2012).

SCENARIOS AND EXERCISES AS "PRESENTING" DEVICES

In 2013, in what we have now identified as a classical sequence, SFI released the implementation plan following its conceptual statement: Toward More Resilient Futures: Putting Foresight into Practice (FEMA 2013). As quoted from the document, "This step moves us beyond the analytical world of process and "theory' toward the real world of practice." The report is divided into three sections. The first section is titled "Sustaining Foresight" and is intended as a move "to spark future thinking" in order to understand "what our future needs will be"; this "requires…to stretch our imaginations and explore the underlying forces of change—seeking to be more prepared, regardless of how the future unfolds." These statements further document the fact that scenarios have become the preferred technique for framing the future in the context of preparedness, as compared to risk analysis. In order to understand this shift, it is useful to reflect further on the ins and outs of scenario making as a technique of preparedness before we return to its relationship to exercises.

Preparedness as a dominant way of relating to the future has to do with a rising sense of uncertainty. Consistent with this perception, being prepared becomes a matter of building broad and flexible "core capabilities" (DHS 2011), which can be combined in discrete configurations to organize a response and face any possible pattern of disaster. In this context, scenarios are used for several purposes: to develop "strategic guidance statements" (HSPD-8 Annex1) which determine the "range of response requirements to facilitate preparedness planning" (DHS 2006: ii); among other things, they then "provide the means to assess capabilities… and ensure the presence or absence of a capability that can be asserted

with some proof… Scenarios also provide a vehicle by which to connect the exercise-specific to current risk and threat assessment analysis by providing the necessary conditions to test the objectives. (They) also provide the means to place the objectives against a wide range of relevant situations [through exercises]" (FEMA 2011a: 10). Simulating "possible future" scenarios makes it possible to determine strategic contexts, identify relevant capabilities, and test them in a controlled manner: that is, they underpin the whole process of organizing preparedness.

In this context, what does this growing pervasiveness of future thinking tell us about preparedness as an increasingly dominant regime of rationality in contemporary understanding/expertise on security?

In order to answer this question, it is useful to bring more conceptual tools into our analysis of organizations. We do so by drawing on B. Latour's recent work (see: Latour 2013, particularly the chapter titled "Speaking of organization in its own language") and more specifically, on one of its core assumptions: that organizations are best understood in terms of organizing practices. His investigation, indeed, involves a seemingly basic yet far-reaching question: how do organizations "hold together"? By asking this question, Latour reverses the usual conception of organizations as a solid set of structures. For him, these seemingly robust networks of actors and equipment – actants in the terms of Actor Network Theory (ANT) - hold only because of a proliferation of organizing acts, which constantly work to reproduce the organization. Accordingly, the object of analysis is displaced from organizations, conceived of as substantial wholes toward these organizing acts, which he labels "scripts." Scripts are then defined as binding scenarios which distribute tasks, positions, and relations in order to achieve an objective (be it an appointment between two colleagues or a merger between transnational companies). Organizations are therefore best characterized, for him, as articulated sets of more or less "wide reaching" scripts, which are mutually articulated, and coordinate and reproduce the organizational network. In other

words: organizations only persist through the continuous interactions that make them exist, as a network of "things" and people. The reproduction of organizations, in this theoretical framework, is thus understood as a very fragile process: it can never be taken for granted. Understanding organizations thus supposes identifying the specific means implemented in order for it to persist as organizations, rather than just falling apart.

With regard to this issue of reproduction, we posit that it is then possible to distinguish preparedness organizations – organizations whose object is preparedness – from other types of organizations, where preparedness is an ancillary activity, subordinated to more fundamental processes. Let us see why.

Most organizations are organized around specific objects. For instance, many organizations revolve mainly around production processes related to deliverable goods, such as physical products or services; other organizations can be concerned mainly by a "common cause" – think of certain types of NGOs. What is important here is that in any case this object provides a concrete base for the organization to keep organizing, against which its development can be assessed. A failed product or a failed advocacy campaign could thus allow an organization to gain lessons from this drawback and to reorganize accordingly, for example through restructuring its R&D department, its production processes, or its model of justice. This kind of concrete object offers proofing capabilities, which sustain the process of organization. However, the picture is more complicated for organizations we label as preparedness organizations.

Preparedness aims at circumventing the effects of disasters. Yet, it does not focus on occurring disasters; the main reason being that as soon as they occur, they enter another domain of action: that of response, where existing organizational frameworks are triggered and tested. In a different context, the management of the H1N1 pandemic by the World Health Organization is a good example: the organization was caught in its plan, pandemic

phases had to be triggered as defined, and scripts unfolded as programmed, even though deciders worldwide felt that the situation turned awkward (Abeysinghe, 2013). The organizing process does not take place here, as preparedness is less concerned with implementing established action templates than with planning for the next emergency. Thus, actual disasters play a role in the organizing process only to the extent that they contribute to preparedness systems in the form of after-action reports, which serve to identify vulnerabilities as well as prepare and (re)organize for the next emergency, in order to be better prepared. For example, hurricane Katrina resulted in the adoption of the Post-Katrina Emergency Management Act of 2006, and the 2009 pandemic influenza crisis drove governmental agencies to engage in lessons learned processes, provoking a reorganization in U.S. preparedness systems. Preparedness as an organizing process is thus oriented towards future threats.

This is critical to our discussion. If preparedness is fundamentally about managing future disasters in order to achieve security, that is: managing uncertainty, it is worth noting that its object – catastrophes yet to occur - is absent from current organizing practices. Even real life crisis, which feed the organizing process through the backward looking approach of lessons learned, are highly discontinuous. Yet preparedness organizations must persist (they must keep on organizing) in the absence of their object, and most of the time, in the absence of such events as real catastrophes.

F. Cooren's work can help grasp the implications of this idea. If we consider that organizations only exist as coordinated (and coordinating) sets of interactions, Cooren posits that organizational practices predominately consist of "conjuring acts" (Tsing 2005), which bring otherwise scattered elements (dislocal, in Cooren's terms) on the scenes of organizational interactions. For instance, NIMS framework can be said to participate in the organization of preparedness only to the extent that it is invoked and implemented locally – made present - by concrete actors in order

to organize concrete practices in concrete situations, be it as a template in order to draft other organizational designs, or to define courses of action during an emergency. Organizing thus consists in staging and arranging, here and now, through communicative acts and practices, different sets of "things" (such as organizational values, norms and procedures), which are understood by the actors involved in the situation as pertaining to/relevant to the organization. These "things" are "made present" by practitioners in interactions, and used to frame a common understanding of the situation and to coordinate their practices. Common series of norms, values, goals and roles (such as those framed in NIMS or "the Goal") – scripts, in Latour's terms – are thus shared across organizational interactions, which facilitate synchronization between their participants and the conveyance of a sense of a coherent, solid, structured, organization. Cooren calls these conjuring practices "presenting" acts: presentification is defined as "ways of speaking and acting that are involved in making present things and beings that, although not physically present, can influence the unfolding of a situation" (Benoit-Barné and Cooren 2009: 10).

In this context, scenarios can be interpreted as specific "presenting" devices, in the sense that they allow the object of preparedness - which is absent ("yet to come") - to be repatriated within the present of concrete organizational interactions, where it can be manipulated. As a matter of proof, the DHS stresses that scenarios do not aim to be exhaustive or predictive (Strengthening National Preparedness: Capabilities Based Planning, DHS Fact Sheet, cited in Zylberman, 2013). Rather, the aim of scenarios is to be plotted in such a way that they "illustrate the tasks and capabilities required to respond to a wide range of major events": that is, their aim is immediately organizational. If Lakoff argues that scenarios and exercises aim to reveal vulnerabilities and play a role in motivating participants in preparedness by making them feel the thrill of fear (as with "Dark Winter" and other exercises), we thus posit that both of these aims are part of a broader function: that of "conjuring" the object of preparedness in the here and now to ensure the continuity of the organizing process in the intervals between "real" disasters. Scenarios provide the plot, and

exercises contribute to fleshing out and offering a flavor of realism to the hypothetical threats developed in planning scenarios, thus making them present and available to the organizing process. If we are right, the rise of scenario planning can thus be interpreted in relation to an intrinsic necessity of preparedness organizations, as a means of reconciling the need for continuity of the organizing process (in order to ensure the undisrupted iteration of organizing acts), the highly discontinuous nature of disasters against which the consistency of the organization is tested and redeployed, and the absence of its object – located in the future.

CONCLUSION

We would like to conclude by offering a few insights with regards to current developments in the U.S. preparedness system, which suggest that scenario planning is growing in importance.

PPD-8 set U. S. preparedness on new tracks, as it has shifted the focus from wide-ranging scenarios to "worst-case" narratives aimed at stressing response capabilities to unprecedented levels (Caudle, 2012). This shift marks a heightened consciousness of the vulnerability of current arrangements and of the possibility of "large-scale disasters" which, as it is understood, could overwhelm all government resources and capabilities. As the "scale and severity of disasters are growing" they will thus "likely pose systemic threats" (FEMA 2011b: 1). In such a dystopian future, the only way to face these looming cataclysms is through the mobilization of the "whole community." As a consequence, FEMA launched a national dialogue on a "whole community" approach to emergency in 2010 (FEMA, 2011), seeking to gather inputs from various actors as to the means of organizing response capabilities in such an environment. As traditional response capacities are now deemed insufficient, concepts like "whole community," "whole-of-government," or "whole-of-society" have emerged as a new dominant discourse on preparedness.

This has two consequences. First, this suggests a shift away from a highly specialized, hierarchized, and centralized preparedness system, which cohered after the 9/11 events, toward a more diffuse form of organization, which relies on the ability to mobilize non-specialized resources and actors in times of crisis. This organization leverages on resources and capabilities which are presumed to be "latent" in society in order to foster preparedness and

tailor new response templates. As phrased by FEMA, the objective is to "understand community complexity [in order to] recognize community capabilities and needs, empower local action, and leverage and strengthen social infrastructure, networks, and assets." This organizing logic renders the need for scenarios even more pressing: if traditional preparedness organizations are held together by recurrent professional interactions, this is less the case in the "whole community" approach. In this framework, scenarios are the only way to "realize" and re-iterate an otherwise diffuse organization, which would otherwise remain latent in everyday practices.

The second consequence is far-reaching. Behind the idea of the "whole community" lies the idea of embedding preparedness in the course of ordinary social process and practices in order to build resilience "within" communities and within individuals. In order to foster these finely grained social changes, a number of initiatives have flourished which seek to involve the "whole of society" through participation in exercises or by encouraging individuals to contribute ideas and advice on the future of preparedness. FEMA, for instance, has developed a crowdsourcing website in order to gather input from the public on its preparedness initiatives and reorganizations[7]. In the context of the whole community approach, FEMA also seeks to involve individuals through children and youth education programs on "individual, family and community preparedness," by leveraging on social media, or by developing recovery plans "with full participation and partnership within the full fabric of the community."

G. Agamben has rightly pointed out that every "dispositive" tends to produce its own subject as it diffuses across society (Agamben, 2009). The U.S. preparedness system is no exception, as individuals are increasingly turned into subjects of preparedness, in a way consistent with a more general orientation toward the future, co-extensive with capitalism (Beckert 2014). In the process, a question arises, on which we would like to conclude: is the

[7] http://fema.ideascale.com/

cultural relationship to the future as a dystopian time-space, framed in security terms, to become more pervasive across society, through the fostering and diffusion of a preparedness *ethos*? Or is this politics of fear going to encounter resistances which could counter it on its very ground – the cultural construction of the future – under the possible forms of a "politics of hope" (Appadurai 2013), where the future is framed as an open horizon for emancipatory practices?

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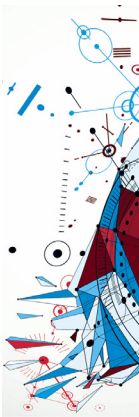
The 9/11 attacks in New York gave a strong impetus to the development of *emergency preparedness* as a dominant way of conceiving domestic security and risk and uncertainty management, in the United States. This has lead to the development of a set of new practices and activities, gathered and articulated under the *preparedness* label. The paper stresses that the term does not circumvent a clear and coherent set of ideas and action plans, related to emergency management; rather, it ties together emerging and fast shifting concepts and practices concerned with crisis anticipation, mitigation and disaster recovery. As a consequence, it proposes to re-consider this domain of public policies by conceiving of preparedness as an *organizational process*, linked to the emergence of a dystopian social and political relationship to the future, in contemporary societies, and aimed at governing coming threats. This processual view allows accounting for both the heterogeneity of preparedness and its institutionalization into a unified field of public action.



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