Exercising emergencies: Resilience, affect and acting out security

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Abstract
The idea of the complex emergency has given rise to the notion of resilience as a form of acting out security. While security policies largely embrace the concept of resilience, critical scholarship points to the ‘responsibilization’ of the threatened subject, who is ‘programmed’ to act out security in a fashion that internalizes neoliberal values. This behaviour is trained through disciplinary practices, such as exercises, that seek to conduct the conduct of disaster populations. However, is the resilient subject only ever an instance of programmes and disciplinary power? This article takes a look at how self-organization comes about and how this process can be conceptualized through affect. It uses the setting of a cyber-security exercise to describe the dynamic interplay between affect and re/action. Building on Spinoza’s understanding of affect as the onset for action, the article discusses what affect theory contributes to resilience theory. It concludes that, as a form of acting out security, resilience incorporates both ‘programmed’ and ‘self-determined’ actions. Both forms of acting, however, imply that the resilient subject has no choice but to act out security. Given this fundamental restraint, powerlessness as the incapacity to act appears as one of the few instances that escape the governmental logic of resilience.

Keywords
Acting, affect, emergency, exercise, power, resilience

Introduction
Emergencies can happen anywhere, anytime, across different sectors and domains – at least, that is one conclusion that Adey et al. (2015: 6) draw from the proliferation of the term ‘emergency’ and its ‘excessive exactness’. This, they argue, does not necessarily signify a broadening of a ‘state of exception’, as works building on Agamben have suggested (see Agamben, 2005; Fassin and Pandolfi, 2010). Rather, it entails that emergencies have become distributed, integrated into the mundane, bureaucratic and quotidian (Adey et al., 2015: 8–9). Emergency’s inseparability from faith in action – that is, the ‘promise that some form of action can make a difference to the emerging event’ (Adey et al., 2015: 5) – and the affect of emergency – urgency – play a central role in the
In the way in which the governance of emergencies has become part of everyday life. This draws attention to the way in which new sites of power are generated in the context of emergencies, which is why Adey et al. (2015: 15) suggest future research to investigate ‘What alternatives to forms of power open up in emergency, how are forms of power contested, negotiated and reworked and how do new ways of being and living happen in emergency settings?’.

In the light of these questions, this article suggests that resilience – the capacity to self-organize, to learn from and adapt to disruption – gains prominence as a technique of governing emergencies and instils specific power dynamics. At the limits of preventability, resilience is adopted into emergency governance because it provides a response to life-threatening events that cannot be averted in time. The epistemology of resilience thus speaks directly to a shift in security practices, whose focus changes from security-as-protection towards an active form of security that is established as a response to harm and insecurity (Kaufmann, 2013). As such, resilience places the responsibility to act out security within the resilient subject, relying upon the subject’s capacity to be affected and its power to respond to urgency with action.

The involvement of citizens into security practices is nothing new. However, while risk practices see the role of the citizen as that of performing ‘generalized borderwalks’ (Vaughan-Williams, 2008: 64) to report suspicious behaviour, resilience practices involve the citizen as a key actor in emergency response (Dunn Cavelty et al., 2015). This trend has harvested both praise and criticism. Supporters emphasize the way in which resilience speaks to the empowerment of subjects and helps them to ‘bounce back better’ (e.g. United Nations International Strategy for Disaster Risk Reduction (UNISDR), 2010). Critics refer to the way in which the ‘responsibilization’ of the threatened subject becomes an expression of neoliberal governance (Reid, 2012; Joseph, 2013), while the subject itself is ‘programmed’ to react in a fashion that internalizes neoliberal values (Grove, 2014). The subject is trained through specific resilience practices, such as exercises, that seek to conduct the conduct of emergency populations (Zebrowski, 2009; see also Duffield, 2012). This eventually instantiates active subjects, which do, however, act in an automated fashion (Aradau, 2010) and are robbed of their agency (Grove, 2014; Howell, 2015; Oels and Methmann, 2015).

As significant as these insights are, there have been calls to investigate the pluralities of resilience (Brassett et al., 2013; Dunn Cavelty et al., 2015). Asking whether the resilient subject is only ever ‘programmed’, this article offers a closer, empirical look at how the supposed self-organization comes about. Despite the fact that resilience locates the responsibility to act out security within the subject, thus invoking specific bodily states to secure life itself, affect and a focus on the physical have only lately entered the critical discussions on resilience (Adey and Anderson, 2012; Grove, 2014). In addition, only a few authors have challenged the criticism that resilience creates only trained forms of self-organization (Adey and Anderson, 2012; Schmidt, 2015). This article argues that an empirical examination of the way in which resilience is acted out, in combination with affect theory, provides valuable insights into how resilient action can be conceptualized.

On an empirical level, the article investigates a German cyber-security exercise. The cyber-attack is easily framed as the archetype of the complex emergency, because disruption tends to cascade in an unpredictable fashion (BBK, 2011a: Slide 8). Cyber-security, Simon and De Goede (2015: 89) argue, ‘directs itself at a milieu considered unmappable in its entirety and unknowable in its essence’. This stands in contrast with the vitality of cyber-infrastructure, without which ‘modern life is considered to be impossible or valueless’ (Simon and De Goede, 2015: 80). As a result, so the narrative goes, effort needs to be spent on strengthening response: exercising represents here one of the main instruments for training resilience. While Simon and De Goede study the cyber-security exercise as a form of ‘bureaucratic vitalism’ (Simon and De Goede, 2015: 82), where the entrainment of open-ended responsiveness as an instance of ‘becoming … movement … action’ (Lash, 2006: 323) is locked to the bureaucratic creation of banal practices, this article uses
a similar setting to take a closer look at the affective making of the active, resilient subject and the way in which emergency exercises produce different powers of acting. It explores the way in which affective life is part of how techniques of governing emergencies come to matter and how they relate to the subject’s capacity to act (McCormack, 2015; Adey et al., 2015). Similar to McCormack (2015: 143), this article argues that affective techniques of governing emergencies imbue life with a sense of ‘urgency that demands response’. In describing the interplay of affect and action at the three-day enactment it examines and draws conclusions about what affect – as the onset for action – contributes to the conceptualization of resilience.

**Resilience: Embracing the idea of security as an activity**

The narrative of the complex emergency features heavily in today’s security and safety politics (O’Malley, 2009; Duffield, 2012; Simon and De Goede, 2015). With the shift from modernism to postmodernism, the emergency is no longer understood as being external to the societal system – an event to be stopped through prediction and planning – but has been reconceptualized as endemic to society (Duffield, 2012). By now, the emergency is a part of the interwoven society: it rises from connectedness and grows in urgency through the idea of nonlinear cascade. This language is well reflected in, but not reduced to, the European Union’s cyber-discourse (see European Agency for Network and Information Society (ENISA), 2011a). Under conditions of complexity, insecurity can only be minimized, but it is never removed (Reid, 2012; Chandler, 2014). This persistence of insecurity and the failure to secure has inspired research on the conceptualization of (security) failure. Failure can be understood as an opening for resistance, as suggested by Stern (2006). She argues that the failure to secure identity can be used as space for contestation (Stern, 2006: 201–202). In a similar vein, Howell (2010) sees that the failure of one technique can evoke new strategies for governing issues at stake – in her case, the mental health of Iraqis in the context of war and liberation. Anderson (2006: 740) also conceptualizes failure as something that ‘makes move’ and inspires a ‘politics of becoming’. In parallel with the emergence of critical research initiatives on the generative nature of failure, that same productivity of failure is also fashioned into concrete techniques for governing emergencies. In fact, the concept of resilience strategically foresees the productive engagement of failure, where ‘failure becomes part of the story about security learning and improvements in capability’ (Heath-Kelly, 2015: 69). Conceptually, resilience claims that ‘security can be furthered through the failure to secure’ as emergencies ‘are turned into productive positives’ (Heath-Kelly, 2015: 74–75). A number of scholars see this productivity of failure claimed by resilience as embedded in neoliberal forms of governance that have the circulatory functions of the polity as their aim (Walker and Cooper, 2011; Joseph, 2013; Oels and Methmann, 2015). Within a politics of resilience, the emergency is thus not only accepted as inevitable, but also framed as an opportunity to develop foresight, enterprise, self-management and responsibility (O’Malley, 2009).

As a result, security is now an act of dealing with security failure, which necessitates an increased involvement of engaged and active citizens (see Brassett et al., 2013; Kaufmann, 2013). In fact, the mobilization of the active subject within security governance has been discussed on a general level – for example, in terms of techniques of voice and consultation (Dean, 2010). In particular, it has already been deployed as a key strategy for the prevention of emergencies – for example, in the shape of the ‘citizen-detective’, the ‘vigilant subject constantly on the look-out for suspicious behaviour’ (Vaughan-Williams, 2008: 77). However, within the context of unpredictable disruption, the active citizen is recast through the lens of resilience, the adaptation to disruption and the attempt to render security failure productive. Within the past decade, resilience has become central to emergency management in the UK (e.g. Challen et al., 2010), Australia (e.g. Australian Government, 2011) and the USA (e.g. US Department of Homeland Security, 2013), as well as in
the European Union (e.g. European Commission, 2010), where it takes a prominent position in the management of cyber-emergencies (ENISA, 2011a,b). Even though definitions of resilience vary across domains, all of them emphasize the capacity of an individual or system to deal with the experience of emergency in a self-organized fashion.

While resilience is largely identified and promoted as a positive characteristic (Bourbeau, 2013), the critical discourse perceives resilience as the state’s withdrawal from the difficult task of protection (Duffield, 2012; Evans and Reid, 2014). The responsibility to establish security is outsourced to the citizen, and this responsibility is framed as an opportunity to develop into a strong, resilient subject (Reid, 2012; Kaufmann, 2013). Within this set-up, however, the state never withdraws completely. Claiming that self-organization is not necessarily an organic development, but the result of strategic institutionalization, Malcolm (2013) discusses how the citizen is encouraged by the state to play an active role in emergency management. In fact, he points to a ‘bargain’ that is struck between the citizen, who acquires extra knowledge and learns to use local resources, and the state, which can count on its citizens’ engagement (Malcolm, 2013: 319). Rogers (2013), however, distinguishes between positive engagement tactics of empowerment and participatory decisionmaking, on the one hand, and negative tactics of responsibilization without granting the citizen access to decisionmaking, on the other. In that vein, the state is also found to exercise distributed forms of power over the subject (Lentzos and Rose, 2009). These are less visible precisely because they appear in the shape of training modules (Grove, 2014) or psychological instructions (Howell, 2015). Grove (2014) describes the entirety of these governmental practices as ‘resilience programming’: resilience is being mediated through affective policies and immunizes the subject in a way that poses no threat to hierarchy and neoliberal order. While he suggests increasing the focus on those techniques that ‘manipulate affective relations in ways that produce agential subjects’ (Grove, 2014: 245), he also asks whether resilience actually is ‘something to be technocratically managed, an object of disaster management’s liberal will to truth … [O]r can it be allowed to flourish in whatever direction it may take?’ (Grove, 2014: 253). Schmidt (2015: 416–417) takes this latter impulse further by emphasizing the positive and pragmatist agenda of resilience through self-referential learning processes – a self-governance that exceeds neoliberal logics and recasts resilience as a resource for democratic empowerment (Schmidt, 2015: 407). Learning would then be a ‘routine of spontaneity’ – that is, contingency and resilience can unblock institutional stalemates and unleash unknown human potentialities’ (Schmidt, 2015: 408). That said, however, resilience still remains the central aim of governmental security practices that render failure productive.

One practice for training citizens is the security exercise. As a governmental tool, the security exercise seeks to create active citizens by affectively modulating their relationship to emergency (Aradau, 2010; Anderson and Adey, 2011; Aradau and Van Munster, 2012). In studying exercises, Anderson and Adey (2011: 1096) find that

it is through affect that threats impress upon bodies, whether that is in a vague atmosphere of unease or in a punctual moment of heightened apprehension – threat being the future quasi-cause for an affective change in the present that is used to legitimise action.

Exercises do not just legitimize action; they also are said to break down ‘the potentially catastrophic event into manageable segments’ (Aradau and Van Munster, 2012: 236). The guiding motivation for exercising is that complex situations can only be understood when acted out and through the juxtapositioning of data, technologies, objects and people in such an enactment (Collier, 2008). Within this set-up, matter, for example, also inspires affective relations and becomes part of the making of active subjects (Adey and Anderson, 2012; Dewsbury et al., 2002). It is through the rehearsal and the acting out that specific behaviours are imprinted upon the body.
(Aradau and Van Munster, 2012). Much in line with the critical assessments of resilience, exercises have been discussed as a governmental technique that affectively moulds the subject to respond in a specific way, to the extent that the subject ‘takes on automaton-like qualities’ (Aradau, 2010: 5). While this entrainment of disciplinary power through ritual play constitutes one criticism, Adey and Anderson draw our attention to failure and the way in which the exercise collects more than the singular logic of successful training. Focusing on affective instances of doubt, uncertainty, the excessive and the contingent, they ask ‘What’s more, where is exercise play as creative and surprising or unpredictable and contingent?’ (Adey and Anderson, 2012: 103). In confronting the idea of the routine with the ‘excess material’ of the exercise, the authors ‘complicate the overdetermining assumptions that power and technique are successful, and remind [us], as Foucault (1977) did, that practices of power are commonly frustrated, escaped and clearly uncertain’ (Adey and Anderson, 2012: 104).

If we understand resilience as a governmental technique that affectively forges active and self-organized citizens, and if one instance of training citizens is the exercise, some questions follow from the positions presented above: Do governments succeed in programming and ‘immunizing the subject’ (Grove, 2014), making it act in an automated fashion (Aradau, 2010)? Can these practices facilitate unexpected agency or be paralleled by creativity and spontaneity, all of which eventually escape such programmes (Anderson and Adey, 2011; Rogers, 2013; Schmidt, 2015)? And can such programmes produce unintended effects and frustrations that do not speak to the active notion of self-organization inherent in resilience (Foucault, 1977)?

This article proposes that the concept of affect can help us better understand and theorize the different dynamics that are at play during exercises. As we have seen, affect has already begun to play a role in resilience studies, but mainly as an instrument of power over the resilient subject (Grove, 2014). I argue, however, that affect also facilitates a more fine-grained conceptualization of the power dynamics that are at play in the making of the active, resilient subject.

The resilient subject: From ‘affect’ to action

This article studies resilience as a governmental programme that affectively modulates a population’s relationship to emergencies. The aim of such a programme is to open up populations to the unexpected. Such projects envisage that affects of urgency and emergency eventually translate into action. At the same time, affect provides a framework through which self-organization and the interplay of action and reaction can be theorized.

‘Affect’ itself is a contested term and notoriously difficult to define. It is deployed ‘in divergent ways across different literatures’, where it is often used interchangeably with concepts such as ‘mood’, ‘the intense’, ‘feelings’ or ‘emotion’ (Anderson, 2006: 734). Massumi (2002a: 43), one of the most prominent figures in the affect discourse, states that ‘affect is the whole world’, and Deleuze, who provided an early reading of Spinoza’s writings on affect, resists a clear conceptualization, using affect instead to proliferate affect theory (see Cole, 2009). Yet there are recurring elements in the different writings on affect that allow us to theorize body knowledge and the logics of becoming, as well as the relationship between action and reaction, all of which take a central role in the politics and governmental practices of resilience. In particular, this article follows Spinozist writings on affect, drawing largely on Massumi’s work (1995, 2002a,b) in describing how affect comes into being, what it is, and what it sets into motion. Broadly speaking, affect is understood as the capacity of the body to effectuate change: it is a pre-personal and pre-conscious incitement, a capacity of being stimulated to act; it is emergent and constitutive of the body. In order to enable a full appreciation of this coarse definition, however, some of affect’s core characteristics need to be presented in more detail.
Affect emerges at the moment of the encounter (Deleuze and Deleuze, 1978). This may be the encounter between different individuals, or between individuals and a situation or material environment (Seyfert, 2012). Massumi (1995: 86) characterizes this encounter as ‘a state of suspense, potentially of disruption. It’s like a temporal sink, a hole in time … it is filled with motion, vibratory motion, resonation’. At this moment of the encounter, subjects are in a receiving state. They receive new information. At the same time, they are in motion, but they have not yet begun to react. For now, they are affected. But what is affect exactly? And how do affect and action relate to each other?

Affect is a capacity, not a property of the body. It is what a body may be able to do (Massumi, 1995; Deleuze, 1988), and the term describes a potentiality for ‘self-organization in being-in-informational’ (Clough, 2008: 1). As such, affect is the pre-text for action and autonomic bodily response (Clough, 2008: 1). Clough goes on to describe affect as anticipation and disposition (Clough, 2008: 5) that propels and compels activation (Clough, 2009: 49). Baruch de Spinoza, whose writings on human and non-human bodies are invoked as the origins of affect studies, relates this affective capability directly to the power of acting: ‘By affect [affectum] I understand affections [affectiones] of the body by which the body’s power [potentia] of acting is increased or diminished, aided or restrained’ (Spinoza, 1996: E3 def. 3).

As such, affect is constitutive of the body (Gueroult, 1968; Ruddick, 2010; Seyfert, 2012), but is not a property of the individual. In fact, it is a pre-personal (Clough, 2008: 1; 2009: 48) and intercorporeal (Seyfert, 2012: 36) capacity that oscillates between ‘two sides of the same dynamic shift’ (Massumi, 2002b: 212): it describes not only the capacity of being affected, but also that of affecting (Clough, 2009: 48; Seyfert, 2012: 34), which is why affect is radically relational and never fully self-contained or self-present. It can apply to myriad subjects, human and non-human, all of which have the ability to affect and be affected – and be transformed in their capacity to act. The following empirical example will trace exactly this back-and-forth dynamic of affecting and being affected during an emergency exercise situation. Affect here appears as urgency and as a sense of emergency that mediates the participant’s relationship to insecurity.

Affect as the capacity to act is furthermore emergent in nature (see Clough, 2008: 3; Guyau, 1887, cited in Seyfert, 2012: 35), and it inspires continuous variation (Deleuze, 1988: 49), while it can vary according to cultural and historical differences (Seyfert, 2012: 31). It describes the ‘opening of the body to its indeterminacy’ (Clough, 2008: 3) and its implicit potential (Clough, 2008: 3; 2009: 48). The body has ‘not yet become’, which is why the study of affect is concerned with a politics of becoming (Anderson, 2006). Affect is not yet a coherent, linear, narrated set of emotions.

In fact, a variety of authors distinguish between affect, feeling and emotion. While feelings act as the assessment of affect (Anderson, 2006), emotions are always already a qualified affect, linear, personal, cognitivized: ‘the qualification of an emotion is quite often, in other contexts, itself a narrative element that moves the action ahead’ (Massumi, 1995: 86). As opposed to affect, emotions are ‘semantically and semiotically formed progressions’ (Massumi, 2002a: 28). Affect thus mobilizes emotion, but it is not emotion (Ruddick, 2010: 22). Clough describes how affect moves through feeling and eventually ends up with ‘subjectively felt states of emotion’ (Clough, 2008: 1; see also Anderson, 2006: 737). Clough’s understanding of affect as pre-emotion is different from that of scholars who study affect as emotions located in the individual body (e.g. Ahmed, 2004 and other scholars of the sociology of emotions). Spinozist scholars instead argue that affect is pre-cognitive (Clough, 2008: 3), challenging ‘notions of will, causality and possibility’ (MacCormack, 2004: 182). The fact that affect is pre-cognitive is what Massumi would call the autonomy of affect: it works without being consciously invoked, and it is unclear in which direction it will lead (Massumi, 1995). Ruddick argues that while affect itself is the capacity of the
body to act, it is the interplay of affect and reason that determines the actual acting (Ruddick, 2010: 38, quoting Deleuze, 1988: 90).

This emergence of action expresses the specific temporality of affect, especially when looked at in the context of resilience and emergency exercises. Here, ‘affect draws the future into the present as indeterminate state of activation, what can become constant alertness’ (Clough, 2009: 49). Affects of alertness and fear, as extensively studied by Massumi (1993, 2005), or of hope (Anderson, 2006), tie the future to the present. In the same way, urgency invoked at resilience exercises appeals to both, the uncertain future and disruptive pasts through which exercises affectively form self-organized, alert subjects in the present. While writing about related security practices of preemption, Clough (2009) and Ong (2006) find that affect induces ‘self-animation’ and ‘self-government’ so that populations can ‘optimize choices, efficiency, and competitiveness in turbulent … conditions’ (Ong, 2006: 6). Ruddick (2010: 35) also finds that affect describes a tendency to self-preserve. This article argues that it is precisely because affect is about the instigation of action and acting that it serves as a theoretical framework for understanding the activist politics of becoming and self-government that resilience inspires. Affect is the continual flux and the continuous constitution and reconstitution of the active subject (Seyfert, 2012: 30–32), which much describes the power dynamics at play in the formation of active, resilient subjects.

**Methodological reflections**

This article illustrates the interplay of affect and action using the example of a cyber-exercise conducted by the German Federal Office of Civil Protection and Disaster Assistance (German acronym: BBK). The BBK was established in 2004 and is a central organ in Germany’s Ministry of the Interior. Its mandate is to ‘ensure the safety of the population’.¹ It combines different functions of civil protection, emergency planning and critical infrastructure protection, one task among which is to enhance the ‘citizens’ ability to help themselves’.² As part of its mandate, the BBK runs nationwide exercises, which take place in a two-year cycle as they require extensive preparation. In general, several federal states exercise simultaneously and the whole exercise is documented in a nationwide computer-based system, using a program into which participants enter any exercise moves. These specific exercises are enshrined in Section 14 of the German Civil Protection and Disaster Management Law.³ They include participants ranging from decision makers in central governmental institutions to private business owners, members of the emergency services, psychologists and the ‘average citizen’.

Following the cyber-exercise in its entirety consisted of participatory observation at the three-day exercise and attendance at preparatory meetings. It also included the study of leaflets, brochures and other supplementary documents, as well as the several hundred pages of the exercise plan, which sets out all concrete steps of the exercising procedure. The contents of the exercise as such were confidential, which is why the amount of source material quoted in this article is disproportionately small. At the three-day exercise, access to the site was closed to the public. As part of this study, however, I did obtain permission to attend all meetings and to conduct interviews within various groups of participants.⁴ There were groups representing the general population, the finance and insurance sector, the institutions of the different federal states, the political administration and media institutions, as well as the overall steering committee. These groups met physically in dedicated locations, where they discussed their moves, and it was here that my interviews took place. All interviews were conducted in German and translated into English. In the translation, special attention was paid to diction, metaphors and expressions in order to keep the translation as close to the original quote as possible. Even though I was one of only a few researchers allowed on the site, my presence was not perceived as an interruption. While the interviewees were presented to me as experts, they were surprisingly open
when they reflected on their experience of emergency, the different encounters at the site and their in/abilities to react. What did determine the findings of the interviews, however, was the time and situational pressure under which the interviews had to be conducted.

Since the participants acted within a given scenario and registered their acts in a computer system that even removes the physicality of acting, one might ask whether the exercise is only a ‘lab’ in which situations, affects and actions are artificially produced. In many ways, exercises are not ‘real’, but are designed to test situations, as well as to harvest and analyse reactions (BBK, 2011b: 12–13). First, however, the exercise situation is supposed to mime reality, and cause realistic problems and real reactions. In order to achieve that, exercises bring together stakeholders and participants whose actions would also be required in real emergency situations. Additionally, calculations based on past incidents (BBK, 2011b: 12) and data material from real cases are integrated into the scenario to make it as realistic as possible (BBK, 2011b: 9). Assessing what kind of incident would create the biggest impact for a society is influential in the selection of a scenario (BBK, 2011b: 9). Efforts are constantly made, however, to ensure that the scenario does not get too apocalyptic (BBK, 2011b: 18; 2011a: Slide 6).

Second, and more importantly, this article argues that despite the various degrees of removal from an actual emergency situation, the exercising subject is still affected, and acts and interacts with other individuals in the name of security. During the cyber-exercise, participants could receive information at any time or experience pressure from a specific party within the exercise; they could be interrupted in their strategic move, insert several reactions at once, lose their overview over the current developments or feel relief when a favourable development took place. Irregular interruptions were caused by media releases, which confronted the participants with a new situation. Affective encounters took place between the participants and the physicality of the setting. Such encounters included, among other things, fast-moving bodies, concentrated typing, intensive discussions, constant streams of information on TV screens and a clear presence of technical infrastructure. The exercise created not only technical and organizational knowledge, but also body knowledge through the experience of affect and acting. Most importantly, the exercise aimed at creating affective body knowledge within the subject in the context of security politics. Accordingly, the exercise is not limited to an artificial ‘lab situation’. Anderson and Adey (2011) even argue that affective body knowledge in fact exceeds the exercise situation.

The emergent character of affect, however, makes it difficult to pinpoint its appearance empirically. It is admittedly difficult to uphold the theoretical distinction between emotions and affect in practice. Where does affect begin and at what point might it become emotion? And how might we investigate something that is pre-conscious? This challenge explains why many contributions in affect studies are theoretical. Others are based on interviews (see Anderson, 2006; Anderson and Adey, 2011), despite the fact that affect first and foremost concerns bodily, pre-narratable experience. Precisely because affect exceeds cognitive closure, it is hard to study. Narration is only ever a subtraction; mediated, smooth and linear, it is already analysed and reduced in complexity (Clough, 2008: 3). The scholarly community, however, eventually produces narrated outputs of empirical studies of affect, whether in test results, field notes that describe atmospheres and physical reactions, or academic papers. Hansen (2003), for example, explored how digital information connects to the affective register; Stäheli (2004) conducted studies of affect at the stock market; Grusin (2004) explored the relationship between affect, security and news media; and Adey (2010) researched the affectivity of aerial life – just to name a few. Affect scholars thus need to account for the tension between narration and affect, both when it comes to methodological choice and when eventually writing about affect.

Even though affect is always more than what can be gained from narration, it can still be appropriated through language. Some scholars even talk about the affect of language (Cole, 2009), and
language as one of many affective modes of interaction (Seyfert, 2012: 35). Narration may thus provide a starting point for an investigation of affect, but it can never fully represent the totality of affect. Since affect is always ‘something to come’ (Massumi, 2002b: 215; see also Anderson, 2006), analysts need to find the moments where affect ‘leaks into the actual’ (Massumi, 2002a: 43; see also Anderson, 2006). Narrations of affective encounters and the experience of pressure, anger, helplessness, fear and relief can thus be used as a starting point for a reverse analysis: What do they tell us about affective encounters? If language is that which connects desire with reason (Cole, 2009: 550), then the cognitive closure of affect is not only happening through narration, but narrations reveal qualified affects – that is, emotions whose onset can be further investigated (Massumi, 2002a; Anderson, 2006; Clough, 2008). Affects may furthermore be talked about without being made explicit – for example, through symbols, experiences and non-intentional communication – giving insights into that which incited individuals to perform specific acts (Clough, 2009: 49). A careful analysis then needs to reflect about such narratives vis-à-vis the cognitive urge to create linearity and claim intentionality (see Athanasiou et al., 2008: 10–11). In order to do so, the study of affect also needs to take account of non-verbal reactions, physical states, enactments and the unsaid through participant observation.

Within the context of the cyber-exercise, it was possible to observe moments of the encounter and the effects they produced. Exercise participants would be exposed to new pieces of information in dedicated meetings at particular times during the day, but also throughout the whole exercise on a smaller scale. At these points, participants would literally be in a receiving state and experience, if not emergency, then at least urgency and the need to react. It was in these moments when individuals encountered new information, people, material and circumstances that affect appeared and their power of re/acting was constituted. Because it was not always possible to distinguish between affect and emotion from observation alone, it was necessary to add interviews with group leaders to the design of the study, which gave participants the possibility to reflect about their moments of encounter. The following section will illustrate ‘affect in action’.

**Affect in action: Insights from a cyber-security exercise**

Any exercise begins with the process of setting the stage, one part of which is the exercising rationale. The BBK’s rationale for exercising is the complex emergency (BBK, 2011b: 3), the archetype of which is the scenario of the cyber-attack. Cyber-scenarios combine infrastructure breakdown with cascading failure, which in turn create affiliated problems, such as societal unrest. They also lend themselves to a particular framing of terrorism. While the terrorist is here a fusion of the angry, disillusioned (non-)citizen and the remotely operating computer expert, presented as enigmatic and unknown, the use of terms such as cyberspace and virtuality equally signify obscurity, all of which points to the limited knowledge available to prevent such emergencies. Already the rhetoric of the scenario creates affects of urgency. The language of fire emergencies, for example, which employs metaphors such as vertical growth, accumulation and exhaustion (Serres, 2000: 64), is well reflected in the diction of the cyber-emergencies that refer to interconnectivity, unidentified vulnerabilities and cascade. These characteristics in fact constitute the BBK’s main justification for a cyber-security exercise: it refers, among other things, to the problem of ‘target-oriented attacks on vulnerabilities’ and related ‘domino-effects’ (BBK, 2011a: Slides 5 and 8). Since the writing of the scenario is itself a linear technique that synchronizes moves, the exercise needed careful planning to ensure that it captured the non-linear character of such an incident without being overwhelming. Similar to what Simon and De Goede observe, this interplay is reached through diverse techniques of ‘disciplining imagination’, by means of ‘not quite realistic newsflashes’ or particularly designed exercise templates (Simon and De Goede, 2015: 97–98). The
following paragraphs draw attention to the way in which affect works in such a bureaucratic-vitalist setting and how the dynamic powers of acting come into play.

During the acting out of the scenario, the overall atmosphere developed from one of professional relaxedness and excitement towards moments of pressure, which were at times filled with pounding concentration and discussion, but also involved anger, exhaustion or phases of boredom. The atmosphere finally reached a form of dissatisfied catharsis, when the source of the cyber-attack was presented in the form of a joke – and not as a realistic plot. While this describes a typical trajectory of physical states during exercises (see Anderson and Adey, 2011), this particular exercise also featured a central and equally typical affect that could be best described as urgency (see Massumi, 1995; Seyfert, 2012). In most cases, urgency was the onset for action and response. Three kinds of encounter were particularly prominent sources of this affect: the encounter with new information in media releases, the encounter with technical failure and the encounter between people. The analytical value of these three encounters is high, since they seem to stand out as sources of affect in many exercise situations. They are briefly introduced in the following text.

Sources of affect

According to the exercise leadership (Interviewee 1), media are an important source of affect. They shape the emergency situation. Not only was a TV report the starting point for the whole exercise, but various fictitious reports and newspaper articles constantly confronted the participants with new information that affected their exercise situation directly. While most media reports featured visuals of disruption, the language used was also an important source of creating pressure. The first media report already deployed vocabulary such as ‘helpless’, ‘fatal’, ‘massive’, ‘overburdened’, ‘previously unknown intensity’ and ‘highest alert’. Later reports heightened the level of intensity by choosing expressions such as ‘parents are rioting’, ‘nothing works’, ‘civilians feel deceived’, ‘attack on vitally important infrastructures’, ‘impossible to capture in its entirety’. Throughout the exercise, the media created a sense of emergency for all participants simply by listing all the vital functions that seemed to be disrupted, and by expressing collective moments of helplessness and anger. Much more could be said about the mechanisms with which media create affect and how they mediate emergency (see Grusin, 2004). For this analysis, it is important to point out that their main role was to distribute new information and create urgency with the intention of evoking reactions by both participants and organizers.

Another related source of affect was the encounter with the idea of technical failure that would cascade through an entire society. In order to evoke this affect, the exercise did not even need to produce an actual encounter with technical failure. The mere imagination and process of envisioning technical failure already produced a sense of emergency. A vast amount of narratives contributed to this imagination. Almost all interviewed participants referred to the elusive nature of the disruptive ‘domino effect’ within infrastructures, which would, however, create concrete and tangible situations. Most participants focused on the concrete impacts in their everyday life, concerning public transport, banking systems, air traffic, food chains, water and energy flows, and communication channels. Other impacts were described more concretely: students who could not register for their exams, welfare recipients without welfare, pensioners without pensions, shoppers without the possibility to pay. One participant said: ‘then you suddenly have a totally different problem, which has nothing to do with bits and bytes, but with people’ (Interviewee 1). It would be not the disastrous event but the plurality of small crises that would lead to a dangerous situation for society. These narratives of technological failure had concrete effects on the participants, which is why the information received through the exercising software or through exercising media created an atmosphere of urgency.
Affect also arose from the encounter between people. While discussing newly received information, the different groups would experience the need to respond. Potential reactions would range from individual responses to something social and more complex, such as consensus-building and the process of developing the next collective move. All of these reactions were preceded by a complex interplay of affecting and being affected. Similar moments occurred at the administrative level, where members of the steering committee would also be confronted with new developments. The regular briefing and review meetings were the main moment of the encounter between the steering committee members. These encounters were marked by high intensity, an urgency driven by the need to act and to decide upon the development of the exercise, which was then translated into concrete actions and cause-and-effect narratives.

The dynamic interplay of affect and acting

In sum, the exercise itself evoked manifold instances of affecting and being affected, of acting and reacting. This interplay was well captured in the words of a media group member, who used the image of ‘ping-pong’ (Interviewee 3). According to him, any exercise situation would be characterized by overarching patterns of affecting and being affected, of acting and causing reaction. Each party in the exercise would receive information and would be affected, but they also would influence this situation by reacting, by applying pressure and by affecting others. This interplay, he said, would mainly take place between the steering group and the participants. Within this situation of ping-pong – or ‘see-saw’, as another participant called it (Interviewee 4) – time pressure and the complexity of the emergency situation itself were frequently mentioned as sources of urgency for everyone. Since the idea of ping-pong offers a simplified yet comprehensible structure with which to disentangle the complex interplay of affects and actions at work during the exercise, the following paragraphs deploy this image to describe some of the most prominent dynamics.

Ping

To begin with, let us consider the way in which the steering committee of the exercise created a situation that affected the participants. Evoking and managing urgency and a sense of emergency is part of the scenario’s overall script. Interviewee 1 talks about the ‘fictitious real side’ of the situation:

Here, we obviously create pressure…. We make sure that the population uses the media to put pressure on those who are supposed to manage the situation. It’s supposed to be an enormous pressure to take decisions. And managers really get affected…. [A]ll of these managers do engage in the exercise. That’s important and surprising, because from my experience I would say that they would play along somehow, but they are very emotional. It’s great that they really allow this pressure to happen. (Interviewee 1)

The members of the steering committee describe their task mainly as managing pressure and producing activity (Interviewee 1), which they do themselves under considerable time constraints. During the exercise briefings, some of the steering managers described their power to shape the course of exercise and the interplay of all its parts as a form of ‘orchestrating’ that builds up to a ‘final concert’ (exercise field notes). It was a challenge to synchronize different strands of the exercise and to make sure that responses were being elicited and noticed (Interviewee 1): ‘We haven’t reached a crisis situation yet. The population is not challenged enough by this scenario – they need to be actors, not just emotional mass and recipients’ (exercise field notes).
Throughout the exercise, however, the participants clearly became increasingly affected. One member of the population group described how affect elicited not only actions, but also more concrete emotions:

At first, there was insecurity. Insecurity and ambiguity. What’s happening? How does this work? Am I getting my money paid out or not? … Then there was frustration, because things didn’t function as expected. And there was distrust towards those who were supposed to govern the situation. Is it true what they say? From my social networks, I heard otherwise. There is something wrong here. Distrust. And from fear and frustration easily arises anger, right? (Interviewee 4)

Other participants were affected because they were confronted with situations that ‘shook the citizens’ very foundations’ (Interviewee 1). It was noticed that, during these moments, the traditional emergency services could not help and the population had to self-organize, which points clearly to the logic of resilience. The idea of making the population become part of the exercise as one that needed to help itself (Interviewee 2) was formulated in the exercise’s compendium. The citizens’ ‘potential’ to help out (Interviewee 5) was at the core of the exercise. After being affected by these various encounters with the emergency situation, the population indeed started to re/act.

Pong

The experience of urgency and the translation of this affect into action took many forms. The media group, for example, not only spread information, but also created excitement. Students and welfare recipients expressed their anger via social media (Interviewee 3) or through complaints (Interviewee 4) when infrastructure broke down. Other representatives of the population group spontaneously devised solutions for their problems and founded self-help initiatives. A group called ‘Cyber Vigilantes’7 attempted to deal with the situation in a self-organized fashion. The finance group, who had to turn off some of their web services owing to a virus, would find ways to substitute these functions (Interviewee 2). All of these groups did receive some instructions in the exercise compendium, but they acted mainly in an ‘autarkic’ fashion (Interviewee 4). The participants organized their re/actions, some of which were based on experiences from former emergencies.

These moves increased the exercise’s level of complexity rapidly, which again created a sense of urgency for the steering committee and those who performed the role of the government. The steering committee was challenged to ensure that the same information reached all participants at the same time. The government group in turn had to take complex decisions under immense time constraints. One of the members of the IT governance group described the intensity and time-criticality of the situation using the image of fire:

When it burns you need to get the main section under control. Applying this image to the IT landscape is a little bit more difficult. Things become more complex. It would mean to identify a network or a software that is infected with a virus…. The classic measure is here to isolate the problem. However in IT, the [measures] are different from simply isolating a burning house so that the neighbourhood would not catch fire. The problem is that not only my neighbour’s house may burn and I can watch the fire flaring, but it may actually already burn at my place, too, but I simply don’t know about it. IT is everywhere…. You do experience helplessness when you see that it can be anywhere and how vast parts of society are dependent on [a functioning network] and suddenly they are affected by the virus, too. (Interviewee 5)

While the fire metaphor described a high level of urgency for the steering committee, others emphasized their professionalism in dealing with affect: ‘The steering won’t be unsettled. Here you notice that professionals are at work’ (Interviewee 1). Other participants confirmed that the
steering committee would experience urgency, but this would not translate into reactions of panic or emotions of fear. Interviewee 3 likened the steering committee to soldiers who learned to stay stable under stress. The exercise would be an important instrument that allowed its participants to learn how it is to be affected (Interviewee 3) in a specific way and how to respond to the experience of urgency by developing creative solutions.

**Ping**

During the exercise, the participants were supposed to experience the translation of affect into re/action, which introduced a new round of affecting and being affected. While some of these reactions were part of the exercise compendium – they were foreseen or foreseeable – others were responses to unpredictable developments or were developed off-script. The exercise compendium frames such off-script reactions as one of the added values that exercising would yield, namely, the ‘closing of gaps’ (exercise field notes; BBK, 2011b). Creativity that follows from a sense of emergency is an integral component of the exercising rationale:

During exercises you can practice a confrontation with new aspects and new damages, which you have not prepared for. And that’s the aim of the exercise: to complete networks and structures, but also to detect and define gaps – not with the intent to blame anyone for it, but to signal where more work needs to be done. (Interviewee 2)

This relationship between programmed and off-script responses brings us back to the opening questions of this article.

**Affect and the power to act: Contributions to resilience theory**

The affect relationships that unfolded during the exercise were messier than the ping-pong metaphor suggests. However, the simplified description made it easier to unpack the dynamic interplay of affect and action that took place at the site. If one understands the exercise as a governmental programme that affectively forges resilient subjects and their capacity to act, the questions posed above still stand: Would such an exercise succeed in programming resilient subjects that now act in an ‘automated’ fashion? Would participants develop unexpected agency that escapes the original intentions of this programme? Or would the exercise produce unintended effects and frustrations that do not speak to the activist notion of resilience?

The brief portrayal of the dynamics at the site illustrates that all three instances – automation, unexpected agency and frustration – took place. In order to substantiate this conclusion, it is important to expand on the understanding of affect as the body’s capacity to act (Spinoza, 1996), bringing about different forms of power. Building on Spinoza, Negri discussed how the power of acting that follows from affect can be understood. He distinguishes between two kinds of power: a constitutive and a dominating form of power. He argues that the ‘capacity to act’ implies the potential for an ‘expansive power’ of ‘ontological opening’ that is a ‘power of freedom’ (Negri, 1999: 77). This is not the power that seeks to dominate life, but it is a ‘constituent power’ (Negri and Casarino, 2008: 167). This constituent power, potentia, is distinct from the other side of power that dominates, invalidates and subtracts, potestas. In sum, power understood as potestas ‘denotes the centralised, mediating, transcendental force of command’, whereas power understood as potentia ‘is the local, immediate, actual force of constitution’ (Hardt, 1991: xiii). Literature on active citizenship makes a similar distinction between different aspects of acting. Isin, for example, distinguishes between the act and routinized action. Acts performed by citizens ‘create a scene’ and ‘call
into question the script itself’ (Isin, 2009: 379). They introduce a break: ‘To act is to actualize a rupture in the given, to act always means to enact the unexpected and the unpredictable’ (Isin, 2009: 380). The opposite of acts are disciplined social (re)actions. They are ‘routinized social actions’ (Isin, 2009: 379).

Such distinctions are helpful to further conceptualize the different dynamics at play during the exercise. Even though the exercise is first and foremost a disciplinary instrument, disciplinary power does not always work in a straightforward manner, nor do exercises necessarily succeed in disciplining subjects (Adey and Anderson, 2012; Adey et al., 2015). As a result, different forms of power and of acting emerge in the context of the exercise. It is difficult to empirically grasp how the power of acting is being determined, but it is possible to analyse the instances of action that followed from the affective encounters at the site. Here, we can distinguish between those actions that were foreseen in the script and those moments that ‘created a scene’ (see Isin, 2009). *Potestas* was expressed in the steering committee’s orchestration of the exercise. The way in which participants acted in accordance with the script, in a routinized and disciplined fashion, revealed moments of successful ‘programming’. Moments of *potentia*, however, were those that ‘called into question’ the exercise script. These were actions that the steering group had not foreseen, such as students rising up or the spontaneous formation of cyber-vigilantes. And yet, one could argue, these moments are instances of resilience: affect translated into action that seeks to re-establish a form of security without being part of the provided disciplinary programme. In fact, such unforeseen reactions are also harvested for future crisis management (BBK, 2011b) and thus eventually tied back into disciplinary formats of resilience practices, which would correspond to Simon and De Goede’s (2015) notion of bureaucratic vitalism.

If we thus understand resilience through affect, resilience is the acting out of security that can be an expression of both *potestas* and *potentia*. The active citizen can be an instance of dominating power that programmes, normalizes and administers self-organization. At the same time, the active citizen can also be an instance of power that exceeds and subverts discipline, generating an act of creative response. *Potentia* and *postestas* are inextricably linked to each other (Anderson, 2012). *Potestas* seeks to administer life and make it productive of a specific kind of security; at the same time, *potentia* exceeds norms that seek to make it productive by creating its own (see Foucault, 1978). How both aspects are intertwined becomes very visible during the emergency exercise. While exercising instruments such as scenarios, compendiums and performance indicators seek to forge resilient ‘automata’, creative and unforeseen reactions to affect may exceed these standards.

Finally, there was an instance that escaped the logic of resilience altogether: the moment of powerlessness. A few participants mentioned that some pressures were experienced in a way that resulted in an incapacity to act or react at all. Interviewee 5 described this moment using the German word ‘Ohnmacht’, which refers to the moment of fainting, but also to a state of being without power. The word is generally used in a moment of being overwhelmed. Exercising instruments thus generated moments of powerlessness, where neither the effective immunization nor the constitutive powers of ‘creating a scene’ got to work. These moments express neither a dominating nor a constituent form of power, but they annul the power to act altogether. As such, they can be captured neither by *potestas/potentia* nor by resilience as the productive engagement of failure and its activist politics of becoming. They stand in tension with the political strategy of exercising and resilience, since they contradict the creative engagement of emergency and the evasion of standstill. During the exercise, ‘Ohnmacht’ referred to that moment in which the participants were overwhelmed by the urgency of the situation: affect simply did not translate into action. The body experienced urgency, but could not effectuate change – it could not be productive, creative or active. Here, affect ended up in a vacuum. Massumi (2005) describes such moments as ‘self-abstracted affect’ (see also Clough, 2009: 50). Here, the activating potential of affect is not
translated into action, into something productive, but it is mere abstract affect, an example of which is self-abstracted fear (Massumi, 2005).

In sum, through affect the resilient subject can be conceptualized either as one that is indirectly being dominated by scripts and training or as one that has the capacity to act off-script. In both instances, however, the subject has no choice but to act, which much describes the governmental logic of resilience. What disrupts this activist politics of resilience is ‘Ohnmacht’, self-abstracted urgency and the state of being without power to act. In similarity to Heath-Kelly’s (2015: 73) argument that empty bombsites stand ‘in excess of all efforts to resignify security failure as something productive’, which reveals ‘a lacuna within the performance of resilience’, I suggest that a conceptualization of resilience through affect offers valuable insights into the different forms of power at play when emergency is experienced and acted upon. However, in the form of self-abstracted urgency, affect also points to a void in resilience, namely, that resilience cannot account for powerlessness, even though it is an expectable phenomenon during emergencies. This moment of powerlessness demonstrates the limits of resilience – that is, the limits of the productivity of failure. It makes us ask how resilience can be conceptualized vis-à-vis powerlessness, what follows from powerlessness, and whether powerlessness has space in a (body) politics geared towards productivity at all.

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Notes

1. See BBK home page at: http://www.bbk.bund.de/EN/Home/home_node.html (accessed 22 September 2015).
2. See BBK home page at: http://www.bbk.bund.de/EN/Home/home_node.html (accessed 22 September 2015).
3. See the BBK LÜKEX leaflet. Available at: http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/Broschueren_Flyer/Flyer_Luekex_2014_eng.pdf?__blob=PublicationFile (accessed 22 September 2015).
4. In order to protect the anonymity of the interviewees cited in the article they are, unless specifically disclosed, deliberately not traceable to any of the groups in the list of references.
5. All quotations are from transmissions on the BBK LÜKEX Exercise TV network.
6. All quotations are from transmissions on the BBK LÜKEX Exercise TV network, or from press and social media material related to the exercise.
7. German term: ‘Cyber Bürgerwehr’.

Interviews

Representative 1 of the exercise’s central steering group, 30 November 2011, Bad Neuenahr-Ahrweiler, Germany.
Representative 2 of the exercise’s central steering group, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.
Representative of the exercise group ‘population’, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.
Representative of the exercise group ‘federal states B’, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.
Representative of the exercise group ‘finance and insurance’, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.

Representative of the exercise group ‘media and public relations’, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.

Representative of the exercise group ‘state and administration’, 1 November 2011, Bad Neuenahr-Ahrweiler, Germany.

Field notes were taken from talks held by the exercise leader and during participant observation. More information on interviews available from the author upon request.

References

Adey P (2010) *Aerial Life: Spaces, Mobilities, Affects*. Oxford: Wiley-Blackwell.

Adey P and Anderson B (2012) Anticipating emergencies: Technologies of preparedness and the matter of security. *Security Dialogue* 43(2): 99–117.

Adey P, Anderson B and Graham S (2015) Introduction: Governing emergencies – Beyond exceptionality. *Theory, Culture & Society* 32(2): 3–17.

Agamben G (2005) *State of Exception*. Trans. Attell K. Chicago, IL: Chicago University Press.

Ahmed S (2004) Collective feelings: Or, the impressions left by others. *Theory, Culture & Society* 21(2): 25–42.

Anderson B (2006) Becoming and being hopeful: Towards a theory of affect. *Environment and Planning D* 24(5): 733–752.

Anderson B (2012) Affect and biopower: Towards a politics of life. *Transactions of the Institute of British Geographers* 37(1): 28–43.

Anderson B and Adey P (2011) Affect and security: Exercising emergency in ‘UK Civil Contingencies’. *Environment and Planning D: Society and Space* 29(6): 1092–1109.

Aradau C (2010) The myth of preparedness. *Radical Philosophy* 161(May/June): 2–7.

Aradau C and Van Munster R (2012) The securitization of catastrophic events: Trauma, enactment, and preparedness exercises. *Alternatives: Global, Local, Political* 37(3): 227–239.

Athanasiou A, Hantzaroula P, Valatsou D and Yannakopoulos K (2008) Towards a new epistemology: The ‘affective turn’. *Historein* 8: 5–16.

Australian Government (2011) *National Strategy for Disaster Resilience*. Available at: http://www.ag.gov.au/EmergencyManagement/About-us-emergency-management/Pages/National-strategy-for-disaster-resilience.aspx (accessed 2 February 2015).

BBK (2011a) BBK Exercise PowerPoint: Grundlagen, Übungsrahmen, Übungsszenario [Basic principles, framework for the exercise, exercise scenario]. BBK IV.6/PG LÜKEX Bund.

BBK (2011b) *Leitfaden für Strategische Krisenmanagement-Übungen* [BBK Guidelines for Strategic Crisis-management Exercises]. Bonn: Bevölkerungsschutz.

Bourbeau P (2013) Resiliencism: Premises and promises in securitization research. *Resilience: International Policies, Practices and Discourses* 1(1): 3–17.

Brassett J, Croft S and Vaughan-Williams N (2013) Introduction: An agenda for resilience research in politics and international relations. *Politics* 33(4): 221–228.

Challen A, Noden P, West A and Machin S (2010) *UK Resilience Programme Evaluation: Final Report*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182419/DFE-RR097.pdf (accessed 22 September 2015).

Chandler D (2014) *Resilience: The Governance of Complexity – Critical Issues in Global Politics*. New York: Routledge.

Clough PT (2008) The affective turn: Political economy, biomedias and bodies. *Theory, Culture & Society* 25(1): 1–22.

Clough PT (2009) The new empiricism: Affect and sociological method. *European Journal of Social Theory* 12(1): 43–61.

Cole D (2009) The actions of affect in Deleuze: Others using language and the language that we make…. *Educational Philosophy and Theory* 43(6): 549–561.
Collier S (2008) Enacting catastrophe: Preparedness, insurance, budgetary rationalization. Economy and Society 37(2): 224–250.

Dean M (2010) Governmentality: Power and Rule in Modern Society, 2nd edn. London: SAGE.

Deleuze E and Deleuze J (1978) Gilles Deleuze, Lecture, Transcripts on Spinoza’s concept of affect. Available at: http://www.gold.ac.uk/media/migrated/media/goldssmiths/departments/researchcentres/centreforthestudyofinventionandsocialprocesscsisp/pdf/deleuze_spinoza_affect.pdf (accessed 20 November 2015).

Deleuze G (1988) Spinoza: Practical Philosophy. San Francisco: City Lights Books.

Dewsbury JD, Harrison P, Rose M and Wylie J (2002) Enacting geographies: Editorial introduction. Geoforum 33(4): 437–440.

Duffield M (2012) Challenging environments: Danger, resilience and the aid industry. Security Dialogue 43(5): 475–492.

Dunn Cavelty M, Kaufmann M and Søby Kristensen K (2015) Resilience and (in)security: Practices, subjects and temporalities. Security Dialogue 46(1): 1–12.

European Agency for Network and Information Society (ENISA) (2011a) Inter-X: Resilience of the Internet Interconnection Ecosystem. Full Report. Available at: http://www.enisa.europa.eu/activities/Resilience-and-CIIP/critical-infrastructure-and-services/inter-x/interx/report (accessed 22 September 2015).

European Agency for Network and Information Society (ENISA) (2011b) Enabling and managing end-to-end resilience. Available at: http://ec.europa.eu/archives/commission_2010-2014/malmstrom/pdf/news/internal_security_strategy_in_action_en.pdf (accessed 20 November 2015).

European Commission (2010) The EU Internal Security Strategy in action: Five steps towards a more secure Europe. Available at: http://ec.europa.eu/commission_2010–2014/malmstrom/pdf/news/internal_security_strategy_in_action_en.pdf (accessed 22 September 2015).

Evans B and Reid J (2014) Resilient Life: The Art of Living Dangerously. Cambridge: Polity.

Fassin D and Pandolfi M (2010) Introduction: Military and humanitarian government in the age of intervention. In: Fassin D and Pandolfi M (eds) Contemporary States of Emergency: The Politics of Military and Humanitarian Interventions. New York: Zone Books, 9–25.

Foucault M (1977) Discipline and Punish. New York: Random House.

Foucault M (1978) The History of Sexuality: An Introduction, vol. 1. London: Penguin.

Grove K (2014) Agency, affect, and the immunological politics of disaster resilience. Environment and Planning D: Society and Space 32(2): 240–256.

Grusin R (2004) Premediation. Criticism 46(1): 17–39.

Gueroult M (1968) Spinoza, Tome 1: Dieu [Spinoza, vol. 1: God]. Hildesheim: Georg Olms Verlag.

Guyau JM (1887) L’art au point de vue sociologique [Art Seen from a Sociological Point of View]. Paris: Félix Alcan.

Hansen M (2003) Affect as medium, or the ‘digital-facial-image’. Journal of Visual Culture 2(2): 205–228.

Hardt M (1991) Translator’s foreword. In: Negri A, The Savage Anomaly. Minneapolis, MN: University of Minnesota Press, xi–xvii.

Heath-Kelly C (2015) Securing through the failure to secure? The ambiguity of resilience at the bombsite. Security Dialogue 46(1): 69–85.

Howell A (2010) Sovereignty, security, psychiatry: Liberation and the failure of mental health governance in Iraq. Security Dialogue 41(4): 347–367.

Howell A (2015) Resilience, war, and austerity: The ethics of military human enhancement and the politics of data. Security Dialogue 46(1): 15–31.

Isin EF (2009) Citizenship in flux: The figure of the activist citizen. Subjectivity 29: 367–388.

Joseph J (2013) Resilience as embedded neoliberalism: A governmentality approach. Resilience: International Policies, Practices and Discourses 1(1): 38–52.

Kaufmann M (2013) Emergent self-organisation in emergencies: Resilience rationales in interconnected societies. Resilience: International Policies, Practices and Discourses 1(1): 53–68.

Lash S (2006) Life (vitalism). Theory, Culture & Society 23(2–3): 323–349.

Lentzos F and Rose N (2009) Governing insecurity: Contingency planning, protection, resilience. Economy and Society 38(2): 230–254.
McCormack D (2015) Governing inflation: Price and atmospheres of emergency. *Theory, Culture & Society* 32(2): 131–154.

MacCormack P (2004) Parabolic philosophies: Analogue and affect. *Theory, Culture & Society* 21(6): 179–187.

Malcolm JA (2013) Project Argus and the resilient citizen. *Politics* 33(4): 311–321.

Massumi B (1993) *Politics of Everyday Fear*. Minneapolis, MN: University of Minnesota Press.

Massumi B (1995) The autonomy of affect. *Cultural Critique* 31(2): 83–109.

Massumi B (2002a) *Parables for the Virtual: Movement, Affect, Sensation*. Durham, NC & London: Duke University Press.

Massumi B (2002b) Navigating movements. In: Zournazi M (ed.) *Hope: New Philosophies for Change*. Annandale: Pluto Press Australia, 210–244.

Massumi B (2005) Fear (the spectrum said). *Positions* 13(1): 31–48.

Negri A (1999) Value and affect. *Boundary* 26(2): 77–88.

Negri A and Casarino C (2008) *In Praise of the Common*. Minneapolis, MN: University of Minnesota Press.

Oels A and Methmann C (2015) From ‘fearing’ to ‘empowering’ climate refugees: Governing climate-induced migration in the name of resilience. *Security Dialogue* 46(1): 51–68.

O’Malley P (2009) ‘Uncertainty makes us free’: Liberalism, risk and individual security. *Behemoth: A Journal on Civilisation* 2(3): 24–38.

Ong A (2006) *Neoliberalism as Exception*. Durham, NC: Duke University Press.

Reid J (2012) The disastrous and politically debased subject of resilience. *Development Dialogue* 58: 67–79.

Rogers P (2013) Rethinking resilience: Articulating community and the UK riots. *Politics* 33(4): 322–333.

Ruddick S (2010) The politics of affect: Spinoza in the work of Negri and Deleuze. *Theory Culture & Society* 27(4): 21–45.

Schmidt J (2015) Intuitively neoliberal? Towards a critical understanding of resilience governance. *European Journal of International Relations* 21(2): 402–426.

Serres M (2000) *The Birth of Physics*. Manchester: Clinamen Press.

Seyfert R (2012) Beyond personal feelings and collective emotions: Toward a theory of social affect. *Theory, Culture & Society* 29(6): 27–46.

Simon S and De Goede M (2015) Cybersecurity, bureaucratic vitalism and European emergency. *Theory, Culture & Society* 32(2): 79–106.

Spinoza B de (1996) *Ethics*. Trans. Hampshire S and Curley EM. London: Penguin.

Stäheli U (2004) Der Takt der Börse. Inklusionseffekte von Verbreitungsmedien am Beispiel des Börsen-Tickers [The pulse of the stock market: Inclusionary effects of dispersive media using the example of the ticker]. *Zeitschrift für Soziologie* 33(3): 245–263.

Stern M (2006) ‘We’ the subject: The power and failure of (in)security. *Security Dialogue* 37(2): 187–205.

United Nations International Strategy for Disaster Risk Reduction (UNISDR) (2010) Building back better for next time: Experiences and lessons learnt from the project ‘Building Resilience to Tsunamis in the Indian Ocean’. Available at: http://www.unisdr.org/files/14499_buildingbackbetterforthennexttime.pdf (accessed 22 September 2015).

US Department of Homeland Security (2013) *National Infrastructure Protection Plan*. Available at: http://www.dhs.gov/national-infrastructure-protection-plan (accessed 22 September 2015).

Vaughan-Williams N (2008) Borderwork beyond the inside/outside? Frontex, the citizen-detective and the War on Terror. *Space and Polity* 12(1): 63–79.

Walker J and Cooper M (2011) Genealogies of resilience: From systems ecology to political economy of crisis adaptation. *Security Dialogue* 42(2): 143–160.

Zebrowski C (2009) Governing the network society: A biopolitical critique of resilience. *Political Perspectives* 3(1): 1–44.

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