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Framing Resilience. From a model-based approach to a management process.

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Abstract

In the last decades the concept ‘resilience’ has gained much ground in a wide variety of academic disciplines, including research on engineering, organizational performance, ecological science, psychology, economics, climate change, disaster management, (systems) safety, security, and risk. Resilience seems to be the answer to a wide range of problems and threats, and therefore garners the attention of policymakers and researchers from different fields and disciplines. As a result, there seems to be a desire to build a holistic, all-encompassing model of resilience that explains which factors contribute to a society’s reliable and safe functioning. Nevertheless, the concept remains subject to debate and diverging interpretations. In this paper we argue for the adoption of a social constructivist perspective on resilience management. Taking into account the influence of processes of sensemaking and framing by stakeholders involved in addressing resilience matters, it would be useful to design a reflexive management process that guides policymakers or other actors through the steps of defining and identifying both what the critical components of the system are to them, as well as understanding which factors they can influence to strengthen the resilience property of the system.

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1. Introduction

In the last decades the concept ‘resilience’ has gained much ground in a wide variety of academic disciplines, including systems engineering, organizational sciences, ecological science, psychology, economics, climate change, disaster management, safety and security research. As Woods and Hollnagel (2006) argue, the focus on resilience might even be seen as a paradigm shift through which the emphasis of research in many disciplines has shifted from the retrospective analysis of ‘unsafety’ (in hindsight) to the comprehension of sources of ‘safety’ in light of threats to the system performance. In simple terms: instead of looking for system vulnerabilities, one would look for system assets that help to mitigate challenging situations. The increased attention for resilience is not limited to academic circles, as policymakers across the world also recognize the value of emphasizing the capabilities of the systems under their influence, rather than pinpointing the weaknesses to more or lesser known threats. Resilience seems to be the answer to a wide range of problems and threats, and therefore garners the attention of policymakers and researchers from different fields and disciplines. As a result, there seems to be a desire to build a holistic, all-encompassing model of resilience that explains which factors contribute to a reliable and safe system, of whatever nature that system may be – a society, a specific community, an organization or system in a more traditional sense. The concept of resilience remains subject to debate and diverging interpretations (Cutter, Burton & Emrich 2010, Shaw, Maythorne 2013) and thus there are many different perceptions of elemental properties and its operational implications.

Inspired by theories of complex (adaptive) systems, there are quite a few examples of studies that attempt to build conceptual and theoretical models of societal resilience (e.g. Cutter et al. 2008, Jordan, Javernick-Will 2012, Longstaff et al. 2010, Norris et al. 2008). In such studies, societies are often approached as complex (adaptive) systems composed of different components or subsystems: social, economic, physical, environmental, organizational, institutional, and so on. These components are closely related and the functioning of the system is determined by the interplay between them. Following Weick (2011) we view resilience as the continuous production of ‘dynamic non-events’, meaning that it refers to the reliable functioning of the system, i.e. its ‘normal state’, with the absence of disturbances and malfunctions. From this perspective, resilience should be seen as the de-facto state of societies. Societies can exist because they are resilient and in a stable state. Resilience should, therefore, be seen as an essential property of the system and not as an external quality that a system ‘possesses’ (or lacks). A thriving society exhibits resilient properties through the interplay of its many components. This means that disruption on one aspect (e.g. an economic crisis) will affect other aspects (e.g. social wellbeing, welfare structures, and emerging community-based initiatives). Strengthening one aspect (e.g. strong social cohesion), will impact other aspects (e.g. economic gains). So, resilience is basically the capacity of a system (society) to keep itself in a stable state, i.e. to continue to be a system. Without resilience, there is no system.

This means that if we talk about enhancing the resilience of a system, we need to define/understand the functional relationships that exist between the various components of that system. In other words, we need to define the extent to which there is reliability and continuity of the systems, functions and principles that are most important to the functioning of the whole system (Flynn 2011). However, because of the complexity of societies it is impossible to objectively define the absolute set of functional relationships that build up the system. Depending on the background of the stakeholders involved, different functions are seen to be critical. Adopting a social constructivist perspective (Berger, Luckmann 1966), we argue that the functions of a system are defined by the perspective through which actors make sense of the system. So, for an ecologist the functions might be different than for an economist. In addition, depending on the specific situation and the specific stakeholders involved, the emphasis of resilience (resilience *of* what and resilience *to* what) will differ. As such, resilience enhancement policies are shaped and negotiated by the continuously changing political climate, cut-backs and dominant societal discourses (‘trending topics’). As Ali and Jones (2013: 11) state: “At a practical level, alternative, complementary and contradictory values of economy, environment, community and security resonate and compete in different jurisdictions, departments and decision spaces”. Furthermore, the very definition of the problem (i.e. specific threats to the system, and thus the resilience of that system) is shaped by local historical and political experience. For instance, a threat of flooding might not be very relevant for a desert community. Therefore, their perspective on resilience will most likely not encompass their capacity to withstand such a threat. In that sense, their intrinsic definition of the term *resilience* will differ from that of a community in a flood-prone area.

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