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The resilience of family farms: Towards a relational approach

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ABSTRACT

Family farms play an important role in the European countryside, yet their number is steadily declining. This raises the question of what conveys resilience to family farms, i.e. the ability to persist over the long-term through buffering shocks and adapting to change. Within the current approaches to farm resilience, we distinguish between two perspectives: the first focuses on material structures and highlights the role of farm types and ecological dynamics. The second focuses on actors and highlights that farmer agency and wider social forces also play important roles. We argue that a third perspective, one focusing on relations, has the potential to overcome both the structure/agency and the ecological/social dichotomies. Indeed, a relational approach enables a closer analysis of how ecological and social processes interact to undermine or strengthen resilience. The approach also allows to identify the different relationalities that are enacted within a specific context, foregrounding diversity in farming. Furthermore, it highlights that relations are continuously made and remade, putting the emphasis on change, and on the wider patterns that enable or constrain change. A relational approach would thus contribute to overcoming a one-sided focus on states and stability, shifting attention to the patterns of relations that enable transformational change.

1. Introduction

There is increasing consensus that change is accelerating and becoming less predictable, as global interconnections lead to events having consequences beyond their immediate context (Freibauer et al., 2011; Rosa, 2013; Sardar, 2015; Steffen et al., 2015). For example, the banking crisis in the US in late 2007 has been tied to the sovereign debt crisis in Europe, which diminished public finances and spread austerity measures (Kitson et al., 2011). These measures reinforce the impact of neoliberal agricultural policies and market deregulation, e.g. of the European milk market in early 2015. But farmers not only face uncertainty about future policy and market developments, they also face the contradictory demands to increase food production to feed the rising world population while having to reduce the ecological impact of intensive production methods. Indeed, biodiversity is declining, soils are losing their organic matter, fresh water resources are being polluted (EEA, 2015). These contradictory societal demands are embedded in the broader need to reduce dependence on fossil energy, in the face of peak oil and of climate change (Weis, 2010). The latter affects agriculture through demands that it contributes to reducing greenhouse gas emissions, while at the same time having to cope with the impact of an increased frequency of extreme weather events, reduced availability of water for irrigation, and the impact of rising temperatures on crop and herd management. These multifaceted dynamics and often contradictory demands may combine with sudden events such as volatile markets or food scares to generate unexpected outcomes.

Facing these turbulences and uncertainties is challenging for farmers, and it comes as no surprise that the number of farms is decreasing. Indeed, in the EU-27 the number of agricultural holdings decreased by 20% between 2003 and 2010 (EC, 2014). However, the ability to navigate turbulent times is not just an issue for individual family farms – which make up 97% of farms in the EU (EC, 2013:9) – it also concerns rural areas and society more broadly. Indeed, farms play an important role in maintaining social cohesion, producing food, providing energy from renewable resources, offering recreational and health care services, and maintaining the cultural landscape (Renting et al., 2008; Seuneke and Bock, 2015).

Within the context of economic turbulences and ecological instability, the concept of resilience has gained prominence both in

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political rhetoric and in research. We build specifically on the concept of social-ecological resilience (see Holling, 2001) as it emphasizes the interdependency of social and ecological dynamics – two key aspects of farming – and emphasizes the need to adapt and change, rather than the ability to buffer shocks and return to 'normal'.[1] The widespread interest in the concept of resilience indicates a shift from seeking to optimize production activities within a framework that is seen as fairly stable, towards accepting the ubiquity of change and thus the need to focus on coping with shocks, and adapting to change. However, the different approaches to farm resilience seem to either privilege the material structures or to highlight that the agency of farmers and other social groups plays an important role. Thus, while the importance of interactions between the ecological and social domain is acknowledged, it remains a challenge to fully integrate both domains, while at the same time capturing the dynamics of on-going change.

The overall aim of this paper is to argue that a relational perspective allows for a more comprehensive approach to understanding the resilience of family farms. Focusing on relations enables a closer analysis of how ecological and social processes interact to undermine or strengthen resilience. Moreover, by emphasizing that relations could always be otherwise, a relational analysis allows to identify how, within a specific context, different relationalities are enacted by farmers. Finally, by highlighting that relations are continuously made and remade, the analytical emphasis is on change and thus the broader patterns that enable or constrain change for individual farms but also for the farming sector as a whole.

We start with a brief overview of social-ecological resilience and how it conceptualizes the interplay between persistence and change. We group the dominant approaches in two perspectives to characterize ways in which resilience thinking has been applied to agriculture and farming, not least based on how the ecological and social domain are conceptualized. A first group of approaches tends to privilege ecological dynamics, searching for empirical cause–effect relationships and often building on the assumption of rational decision-making by farmers and other actors. Studies within this perspective often build on variable-driven analyses, searching for structural factors that inherently convey resilience. A second group of approaches focuses on the influence of social dynamics and emphasize agency. Studies in this perspective focus on farmers' perceptions and how their choices influence the adaptation of their farms, but also on the role played by larger social forces. To overcome both the ecological-social and the structure-agency dichotomies, we propose a third perspective on farm resilience, one focusing on relations. Resilience is then understood not as a fixed asset but as emerging from the dynamics of enacted relations, relations that are continuously remade in interaction with the past and with the current context.

2. Resilience thinking

Resilience is a term that is increasingly popular, both in policy contexts and in scientific debates (Davidson, 2010; Walker and Cooper, 2011). Resilience thinking not only emphasizes that change is ubiquitous, it also highlights that the source, type, timing, duration and impact of change is often unpredictable. As such it emphasizes that to persist over the long term, a system needs to change:

> "A management approach based on resilience (…) would emphasize the need to keep options open (…) and the need to emphasize heterogeneity. Flowing from this would be not the presumption of sufficient knowledge, but the recognition of our ignorance: not the assumption that future events are expected, but that they will be unexpected." (Holling, 1973: 21)

The 'adaptive cycle' is a heuristic model used to capture the non-linear dynamics of social-ecological systems, and to illustrate qualitatively different types of change (Gunderson and Holling, 2002; Burkhard et al., 2011). It distinguishes between four phases: exploitation, conservation, release and reorganisation (Fig. 1). During the exploitation phase, the farming system is well attuned to its environment, and aims to increase its efficiency. While many marginal adaptations are implemented – represented by the squiggly line of small-scale adaptive cycles in Fig. 1 – the system remains within the same overall trajectory, i.e. within broadly the same production practices and rationality. Over time, efficiency of resource use is increased, operations streamlined, variability reduced, and stability increased. However, as the number of connections increases, the change potential decreases. Indeed, while fine-tuning connections increases efficiency for a while, eventually the system is over-connected, i.e. variables and processes are so tightly controlled that the system becomes rigid. This limits its ability to respond to change. A disturbance such as a drought or a drop in prices is then sufficient to trigger the release phase: the tight organisation is lost, connections broken and resources freed. While the release phase is linked to great uncertainty, it also enables creative experimentation, innovation and redirection. Eventually, new connections are established and resources used and linked in novel ways. This starts the reorganisation phase, which leads to a new adaptive cycle, with increasingly efficient use of resources through fine-tuning processes and connections. The adaptive cycle thus conceptualizes change as an ongoing process, not as an occasional event.

A social-ecological system is resilient if it can successfully

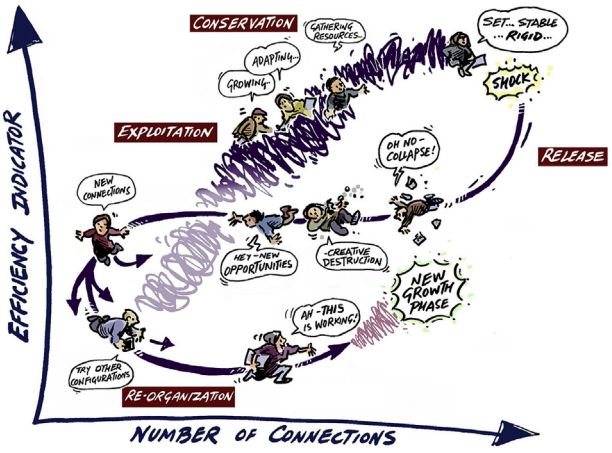

Fig. 1. For a farm to be resilient, it needs to be able to navigate the adaptive cycle. This includes long periods of marginal change where connections between resources are fine-tuned to increase efficiency. However, over time the system becomes rigid. Following a shock, connections are severed and resources released. The farm then needs to be able to navigate a period of rapid change, when previously explored opportunities are implemented. The farm undergoes a radical reorganization, before entering the next growth phase.
Illustration by Simon Kneebone for the authors (based on the adaptive cycle in Burkhard et al., 2011)

[1] As the concept of resilience has become popular, it now covers a wide range of definitions, meanings and connotations (see reviews by e.g. Brand and Jax, 2007; Walker and Cooper, 2011; Alexander, 2013). In this paper we only refer to the concept of social-ecological resilience, as defined by C.S. Holling and further developed within the Resilience Alliance.