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Change agency in social innovation: an analysis of activities in social innovation processes

Samuel Wirth^{a,b}, Pascal Tschumi^b, Heike Mayer ^b and Monika Bandi Tanner^a

ABSTRACT

We examine the role of change agency in social innovations. Agency in social innovations can create new resources and capacities for transformative change in a region. To date, there is a lack of empirical studies investigating how agency manifests itself in social innovations. In particular, research has not yet investigated the detailed activities of social innovation actors throughout the phases of social innovation processes. In this paper we apply the concept of trinity of change agency to investigate the activities of social innovation actors. Using innovation biographies and data from 61 interviews for 11 case studies of social innovation in a peripheral mountain region in Switzerland, we analyse the social innovation process from an actor-oriented perspective. Our findings show that the various types of change agency are highly present in social innovations. The significance of change agency alters throughout the innovation process. Our analysis shows that all kinds of actors performed change agency during the social innovation process. Interestingly, some actors performed different types of change agency during the social innovation process. The findings suggest that change agency is as a significant element in social innovations and that we need to consider it as a transformative element of social innovation processes. When policymakers take change agency into account in creating an environment in which social innovations can flourish, there is a great chance that social innovations can contribute to changing regional development paths and perhaps even to regional transformation.

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change agency; social innovation; innovation biography; tourism; healthcare; mountain region; Switzerland

1. INTRODUCTION

Agency, defined as human activities with their intended and unintended consequences, is gaining interest in the social innovation literature (Pel et al., 2020; Suitner et al., 2022; Torre et al., 2020). Agency in social innovation is related to all kinds of activities to establish and develop social innovations and it is performed by the actors involved in social innovation processes. These activities can lead to changes in agendas and institutions, profoundly influencing basic routines, beliefs, power relations and/or resources (Castro-Arce & Vanclay, 2020; Franz et al., 2012; Pel et al., 2020). As such, agency in social innovations is considered to have the potential to solve regional challenges. Generally, there is a lack of empirical studies investigating

CONTACT Samuel Wirth  samuel.wirth@unibe.ch

^aCenter for Regional Economic Development, CRED-T, University of Bern, Bern, Switzerland

^bInstitute of Geography & Center for Regional Economic Development, University of Bern, Bern, Switzerland

how agency, which may lead to regional transformation, manifests itself in social innovations, that is, how different forms of agency are performed.

While the social innovation literature emphasizes the role of diverse actors when establishing solutions to societal problems or when creating new types of partnership (Ayob et al., 2016) recent studies in economic geography have shifted their focus on the role of the agents and agency. This research has addressed more general regional development processes and not specifically social innovation. Given the fact that social innovations are important when it comes to regional transformation and to addressing societal challenges (Tödtling et al., 2021), we need to understand the role of agency and specifically, we need to better understand the kinds of agency that are the most prevalent throughout a social innovation process. It remains an open question what type of actors perform what kind of activities in what type of agency, and how agency evolves throughout the social innovation process. We address this gap by analysing the activities of social innovation actors throughout social innovation processes. For our analysis, we applied the trinity of change agency concept, which was introduced by Grillitsch and Sotarauta (2020). The concept is particularly suitable for examining how agency manifests itself in social innovation processes because it comprises three distinct types of change agency that are important for regional transformation. We pose the following research questions: What types of change agency are performed in social innovation processes? In which ways are these different types of change agency performed and by whom?

We address these questions through an analysis of social innovations in tourism and healthcare in the Bernese Oberland, a mountain area in Switzerland. In this region, the two sectors are critically important because they provide substantial employment opportunities and ensure the provision of services for basic needs. Healthcare and tourism are not considered as being particularly innovative in terms of traditional types of innovation. Yet, our research unveiled that there are many innovative approaches, initiatives, and projects in the region that tackle challenges or improve the local or regional tourism and healthcare sector. These innovative approaches were identified and defined as social innovations (Tschumi & Mayer, 2020; Wirth & Bandi Tanner, 2020). We examined 11 social innovations that emerged over the past 14 years in the healthcare and tourism sector. The selected case studies represent a broad set of social innovations. The social innovations in tourism represent new forms of cooperation that aim at solving tourism-/actor-specific and/or regional challenges and thus have a potentially positive impact on the region's socio-economic structure. Similarly, the social innovations in healthcare also represent new forms of organizations and aim at improving the living situation in this peripheral part of Switzerland. The 11 social innovations are characterized by a rather strong element of Schumpeterian entrepreneurship as the involved actors had to take risks and be entrepreneurially minded when trying to establish and run the social innovations. Some of the social innovations are organized as private sector initiatives, but many are organized as non-profit associations, cooperatives or public-private partnerships.

In recent years, the literature on social innovations started to turn its attention to the rural context (Bock, 2016; Neumeier, 2012), which also fits our study context of the Bernese Oberland as a mountain region. Social innovations in rural or peripheral regions are seen to address the deep-seated changes that take place in the rural context and provide solutions for challenges such as depopulation or an aging society (Bock, 2016). They may have the potential to provide solutions to the challenges emanating from rural marginalization. Social innovations in rural areas often incorporate collective action by a range of (often civic) actors, novel forms of cooperation and organizational structures, and they go beyond a narrow area of application like in former approaches of rural policy (Bock, 2016). By focusing on the context of mountain regions, we heed the call by Pugh and Dubois (2021), namely addressing the problem of 'bad talking' about peripheries. We rather take a capacity approach when focusing on change agency

in social innovation in a peripheral context as we assume that this context offers plenty of opportunity to develop unique solutions to region-specific challenges.

A study of change agency in social innovation requires a micro-perspective on actors and their behaviour over time. We applied the method of innovation biographies and analysed in detail the activities of the involved social innovation actors along the innovation process.

The remainder of the paper is structured as follows. We start with a clarification of the concept of social innovation and the different types of agency. We then describe the unique set of activities that are associated with developing and implementing a social innovation and relate these activities to the types of agency. In the methodology section we present detailed information on our case study region and on the methodology of innovation biographies. In the results section we first describe the role that change agency plays along the social innovation process and how the actors perform change agency. To develop a more detailed understanding, we present the results for two selected social innovations. These two examples were chosen because they illustrate the changing role of agency in one healthcare and one tourism-related social innovation. In the final section we discuss our findings and draw a conclusion.

2. LITERATURE REVIEW

Although scholars have increasingly been using the concept of social innovation over the past 20 years (Ayob et al., 2016; van der Have & Rubalcaba, 2016), there is no agreed-on definition of social innovation (van der Have & Rubalcaba, 2016). While some social innovation literature strands focus on the change in social relations and practices (Franz et al., 2012) or on creative processes in social innovations (Mumford 2002), one of the most influential strands is the local development strand centred on the work by Moulaert. This strand states that social innovations should be aimed at addressing social challenges, satisfying human needs, empowering people and changing social relations (Moulaert et al., 2005) and thereby departs from traditional enterprise innovations that mainly aim at profit maximization and developing new markets.

A common feature of social innovations present in all literature strands was deduced by Ayob et al. (2016) in their bibliometric analysis of social innovation research articles and other publications. They found that social innovations involve 'new forms of collaboration, whether at an individual or organisational level' (p. 648) that lead to new ideas. Whereas collaboration among actors from different sectors can be present in other forms of innovation, social innovations often comprise a much more diverse range of collaborating actors, including civic actors, third sector organizations, private entrepreneurs and the public sector (Nicholls et al., 2016). In contrast to the other literature strands, the local development strand perceives social innovation as a process embedded in a spatial context (Van Dyck & Van den Broeck, 2013). Social innovations satisfy local/regional actors' needs and address local/regional challenges faced by these actors (Moulaert et al., 2005). Social innovations can shape the way a locality or region develops and sometimes even lead to regional transitions (Suitner et al., 2022). This is in line with recent publications, which emphasize that social innovations can lead to social change and institutional transformation (Pel et al., 2020; van Wijk et al., 2019). However, it is not a common feature of social innovations that they must lead to such change (Ayob et al., 2016). Rather, it is the potential of social innovations to induce such change.

Based on these considerations, we define social innovations as new forms of cooperation that lead to new ideas on a local or regional level and aim at solving challenges faced by local or regional actors. These ideas can lead to changes in social and institutional structures, and regional development paths.

Studying social innovations in mountain regions is especially important because prior research illustrates that many innovative approaches, initiatives or projects aim at tackling

regional and/or actor-specific challenges and thus influence regional transformation (Mayer et al., 2021). To achieve such impacts, human agency in social innovation processes is crucial (Torre et al., 2020; van Wijk et al., 2019).

However, there is a lack of empirical studies investigating how agency indeed manifests itself in social innovations. In this paper we extend the theoretical developments of Suitner et al. (2022). Although they emphasize that agency provides directionality for transformative change and that agency is part of every stage of the social innovation process, their study does not focus on the detailed activities of social innovation actors throughout the phases of social innovation processes. Furthermore, their study does not consider the dynamics and in particular the temporality of agency, that is, how different forms of agency change during social innovation processes. Examining the activities and the changing character of agency in social innovation processes is important because we need to know what actors can do to initiate transformative changes. To investigate how agency evolves and changes in social innovation processes, we use the work by Grillitsch and Sotarauta (2020) who introduced the concept of trinity of change agency to explain transformative path development. They address the interplay between path dependency, structural conditions, and the construction and use of opportunities through agentic processes and argue that a trinity of agency shapes and transforms regional development paths. The concept distinguishes three conceptually and empirically derived types of change agency, which makes it particularly suitable for detecting how agency manifests itself in social innovation processes:

- Innovative entrepreneurship refers to agency in a new field by risk-taking activities and the search for new (economic) opportunities. In addition, it refers to activities that aim at breaking with existing ways of doing things and establishing new ones by combining knowledge and resources in novel ways (Feldman et al., 2005; Shane & Venkataraman, 2000; Weik, 2011).
- Institutional entrepreneurship refers to agency related to the introduction and implementation of divergent institutional change. It aims at changing existing institutions or introducing new ones (Battilana et al., 2009). Particularly, these are activities associated with crafting a vision for divergent change and mobilizing allies (Battilana et al., 2009).
- Place-based leadership refers to agency related to mobilizing and connecting actors with different knowledge, resources and networks so that they would be able to contribute to, and benefit from, development processes and outcomes. It includes negotiating with different actors at municipal, regional and transnational scales (Grillitsch et al. 2021), applying rather collaborative than hierarchical leadership (Beer & Clower, 2014).

Studies found that in processes of changing regional development paths, all three types of agency are performed (e.g., Grillitsch et al., 2021; Jolly et al., 2020). There is also evidence provided by Grillitsch, Sotarauta et al. (2022) that the performance of one type of change agency lays the foundation for other types to unfold. For example, ‘institutional entrepreneurship ... provided the grounds for mobilizing across actor groups and pooling resources (place-based leadership), which led to improved regional preconditions for stimulating innovative entrepreneurship’ (p. 13). As collective agency plays an important role in changing regional development paths (Huggins & Thompson, 2022), the three types of agency are often performed in conjunction (Grillitsch, Asheim et al., 2022; Sotarauta et al., 2021). Particularly, Jolly et al. (2020) found that same types of actors can perform multiple types of change agency in one phase of a path development at a time and/or alter their performed change agency in the subsequent or preceding phase.

Although the trinity of change agency concept was developed for the study of regional (economic) growth paths and ‘traditional’ forms of innovations (Grillitsch & Sotarauta,

2020), the activities that are related to the three types of agency could potentially apply to all kinds of innovation processes (including social innovation) because innovation processes generally rely on agency to change extant practices (Kristof, 2022). This is even the case for innovative entrepreneurship, which is typical to 'traditional' forms of innovation (Weik, 2011), for instance, for activities related to risk-taking or combining knowledge and resources in novel ways. Since the notion of changing practices and finding solutions to challenges is central to social innovations (Franz et al., 2012; Moulaert & MacCallum, 2019; van der Have & Rubalcaba, 2016), the three types of change agency can also be present in the process of developing and implementing social innovations. Thus, some of the findings on change agency in processes of changing regional development paths can also be expected to be valid for social innovation processes. Social innovations generally result from co-evolutionary processes that involve various actors including people from the local community, public, and private actors (Butzin & Terstriep, 2018; Farmer et al., 2018; Moulaert et al., 2013; Nicholls et al., 2016). Social innovation actors engage in all sorts of activities when they are involved in the social innovation process, ranging from activities related to the initial idea generation to activities related to the implementation of the social innovation. The literature emphasizes that the actors take various roles and therefore perform various activities (Butzin & Terstriep, 2018). We can therefore expect that the same social innovation actors can perform different types of change agency. It is therefore particularly interesting to examine the various types of change agency and to focus on the actors performing the types throughout the social innovation process. Suitner et al. (2022) examined what determines and facilitates agency in social innovations for regional transformations. We add to this by providing a detailed analysis of each change agency throughout the social innovation process.

In this paper we focus on activities of the actors involved in social innovation. The activities relate to intended or unintended actions to establish and develop social innovations. We define activities as sequences/series of actions performed by social innovation actors in different phases throughout the social innovation process. For instance, they encompass initial networking to find supporters for a novel approach, initiative or project, lobbying and negotiating and implementing the social innovation. The activities can be related to the three types of change agency:

- Innovative entrepreneurship involves activities that involve a high degree of risk-taking and we may typically find these types of risk-taking activities in the beginning of a social innovation process. As social innovation initiators search for new opportunities to get the social innovation started, they often take personal risks (Jungsberg et al., 2020). They may borrow money or capital or (partly) abandon their job to invest more time in initiating the social innovation. However, searching for new (economic) opportunities and thereby taking risks might also be present during later stages of the social innovation process as social innovation processes are open toward external influences, such as new regional development programmes (Neumeier, 2012). Social innovation actors can therefore be triggered to take risks and search new opportunities even after the social innovation idea has already been implemented.
- Institutional entrepreneurship generally involves activities to mobilize allies outside the realm of a social innovation. This type of agency might take place when the social innovation has already been established and there is a need to gain political support or support from third sector or private organizations (Jensen & Fersch, 2019; Jungsberg et al., 2020; Murray et al., 2010; Terstriep et al., 2015). For example, a midwife may talk to public representatives to get political support for the social innovation or a founder of a solar ship may negotiate with the government to get a fixed contract for offering boat trips.
- Place-based leadership typically involves activities to connect with actors outside the social innovation to gain access to knowledge, resources and network. These activities are likely

to be present in the same phase as activities related to institutional entrepreneurship. In this phase, social innovations begin to reach out for supporters, and the involved actors need knowledge and resources to get the social innovation's idea into practice/operation (Bock, 2016; Farmer et al., 2018; Jungsberg et al., 2020). For instance, the midwife from the example above may make efforts to integrate policy actors into the social innovation to get access to specific regulatory knowledge. Such collaboration among actors from diverse sectors and professional backgrounds is one of the main features and defining elements of social innovations (Moulaert et al., 2013; Nicholls et al., 2016). Collaboration and support is particularly important when the social innovation is being established as a new practice, service or product (Farmer et al., 2018; Murray et al., 2010). With the support of other actors at this stage, the social innovation can impact institutions (Terstriep et al., 2015), for instance by influencing social practices or policies (Howaldt & Schwarz, 2016; Miquel et al., 2013).

Apart from these three types of change agency, there might also be agency that involves activities to resist novel inputs and to hold on to existing ways of acting. In the literature on changing regional development paths, this sort of agency is referred to as 'structural maintenance' (Jolly et al., 2020) or 'reproductive agency' (Bækkelund, 2021). In the process of developing and implementing social innovations, there might be resistance to change practices and to introduce novel solutions, which could go in line with the marginalization of viewpoints and exclusion of actors (Arora et al., 2021). However, this type of agency is likely to be performed by actors who are not part of the social innovation process, since those actors who are involved in developing and implementing social innovations are commonly very eager to change extant practices and to find solutions to challenges (Farmer et al., 2018; Jungsberg et al., 2020). This paper focuses on the activities of social innovation actors who are involved in the social innovation process and therefore focuses on the role of change agency.

3. METHODOLOGY

We examine change agency in social innovation processes through the use of detailed innovation biographies of 11 case studies of social innovations in healthcare and tourism in the Bernese Oberland, a Swiss mountain region. We focused our analysis on the activities of involved social innovation actors from the initial idea generation to the implementation and operation of the respective social innovation. In the Bernese Oberland the dominating role of tourism influences the economic structure, the culture and the type of actors involved in regional development (Haisch, 2017). Most employment opportunities are in tourism and healthcare industry (Kanton Bern Amt für Wirtschaft, 2019). Even though healthcare services are declining like in many other non-core mountain regions, there are still five hospitals and several other healthcare organizations present in the region. In both sectors we find many grassroots initiatives that can be characterized as social innovations. These are either aimed at filling a gap (healthcare) or at creating new offerings and cooperation (tourism). The region is considered to be sparsely populated and peripheral for the Swiss context. Tourism and healthcare are two interesting sectors to study since they are generally not considered as innovative in terms of more traditional notions of innovation (e.g., in the sense of new products or technologies). Innovation dynamics in tourism are rather limited due to low investments in research and development, high labour intensity in daily business and the small-scale business structure. Furthermore, innovations in tourism are hard to protect and are therefore easy to imitate (Sundbo, 2015). Therefore, we might expect that change agency is part of innovation in tourism. For instance innovative entrepreneurship may occur due to the need for a constantly search for new (economic) opportunities. Innovation dynamics in healthcare is hampered due to the sector's highly regulative nature

(Herzlinger, 2006). Therefore, we might expect that change agency is also part of innovation in healthcare. For instance, institutional entrepreneurship may occur so that agency can change the regulatory framework. Despite these limitations in terms of the sectors' innovative dynamics, we found a number of social innovations that emerged in these two industries (Tschumi & Mayer, 2020; Wirth & Bandi Tanner, 2020). These social innovations arose as new forms of cooperation among actors who usually do not cooperate in the context of mountain regions. They arose from cooperations among civil society actors, tourism and healthcare professionals, third sector organizations or public actors (Tschumi & Mayer, 2020). Each of the social innovations addresses a challenge faced by one or several regional actors. The social innovations we examined either have the potential to change institutional settings or in fact have been changing institutional settings and regional development paths because they had existed for several years (4–14 years) and involved many diverse actors throughout their processes. Over time they influenced activities of many different actors to advance ideas and practices beyond the social innovation itself. For instance, they could influence the practices of regional decision-makers and regulators. Furthermore, the selected social innovations address challenges and the involved actors searched for solutions to these challenges. Overall, they showcase new approaches to structure the region's society, politics and economy.

The purpose of choosing the 11 case studies in the two sectors was to illuminate the role of change agency in potentially transformative social innovations in a peripheral region. We did not intend to compare the two sectors. Rather, we were interested in studying the ways in which social innovations in two sectors that are dominant in a peripheral region and that are characterized by rather traditional modes of innovation and incrustated structures, incorporate different forms of human agency that might potentially lead to new forms of service delivery, collaboration, etc.

The innovation biography method is used to analyse social innovation processes from a micro-level, actor-oriented perspective (Jungsberg et al., 2020; Kleverbeck & Terstriep, 2018). It thus allows to capture the actors' roles and activities in the detailed trajectory of 'a concrete innovation process from its first idea until implementation' (Butzin & Widmaier, 2016, p. 221). The particularity of the innovation biography method is that it combines data from narrative and semi-structured interviews as well as from desk research. The narrative interviews and desk research reveal the events in the social innovation process and the actors involved in these events. The semi-structured interviews reveal the details of the events and of the involved actors. Our data analysis aimed at identifying the actors' activities in the process but we were also interested in examining why and in which ways the actors collaborated. The method is quite open to all sorts of micro-level, actor-oriented investigations (Butzin & Widmaier, 2016), including, for instance, the personal and psychological dimensions of agency (Upham et al., 2019, 2020). For our study, we focused on the actors' activities related to the different types of change agency.

The method involves a step-wise procedure (Butzin & Widmaier, 2016). First, we conducted a narrative interview with one of the actors who has been part of the social innovation for a substantial amount of time. With these interviews we gained data on the consecutive events of each social innovation and the actors involved in these events. We conducted extensive desk research to find more information about the events and the actors, especially about those events and actors that revealed to be important for the innovation process. We searched websites, newspaper articles and annual reports related to the social innovations using search engines and subsequently searched information on the events and actors within the websites or text documents. Based on this desk research and the narrative interviews, we created first drafts of the biographies for each of the 11 social innovations. Each biography comprised a comprehensive set of consecutive events and the actors involved in these events. To fill remaining gaps in the biographies and to gather data on the actors' activities during the events of the innovation process, we subsequently conducted semi-structured interviews with key social innovation

actors. In total, we interviewed 61 actors and created 11 comprehensive social innovation biographies. For each event from the biographies, we identified activities, that is, sequences and/or series of actions performed by the social innovation actors involved in the events (for an operationalization example, see Table 1). We then connected the activities to the different types of change agency by using a set of core questions, which we derived from pertinent literature (Table 1). This resulted in a comprehensive collection of activities, which were matched to the three types of change agency throughout the process of each of the 11 social innovations.

We wanted to analyse the process of social innovations systematically. To do so, we identified and distinguished three phases in the social innovation processes for our case studies. This allowed us to compare the activities and their related change agency among the three phases for all 11 social innovation cases. The identification of the phases was based on the biographies and guided by the social innovation phases according to Neumeier (2012). Neumeier's phase descriptions suited well to delineate the processes of all our analysed social innovations because they are rather broad. According to Neumeier, phase 1 involves the identification of a problem by one actor or a small group of actors. The actors develop a new idea how to potentially solve the problem. Phase 2 involves searching for actors to support and implement the idea. In phase 3, the social innovation is being fully implemented and can gain more supporting actors who spread the practices of the social innovation. Although these descriptions are rather broad, once we applied them to our social innovation cases, the descriptions of the three phases take a more detailed shape. In our analysed social innovation cases, the phases can be described as follows. In phase 1, the actors that were involved in the social innovations from the beginning recognized a regional and/or an actor-specific problem and created the idea of the social innovation. Furthermore, they clarified the conditions for implementing the social innovation. Specifically, they clarified the feasibility of the social innovation and searched potential helping actors. In phase 2, the social innovation was implemented and started to operate. This phase often marked the beginning of collaborations with actors within the social innovation and often included presenting the social innovation to the public. In phase 3, the implementation of the social innovation was completed and the social innovation began to operate. This phase included daily business activities towards running the social innovation, as well as activities for further development. We assigned each event of the 11 social innovation biographies (with its related actors and activities) to one of the three phases and merged all events pertaining

Table 1. Applying the concept of trinity of change agency according to Grillitsch and Sotarauta (2020).

	Innovative entrepreneurship	Institutional entrepreneurship	Place-based leadership
Core questions	Are the social innovation actors willing to take risks and do they search for (economic) opportunities to create something new?	Are the social innovation actors trying to influence existing opinions and attitudes towards a region's development and/or towards a social innovation?	Are the social innovation actors aiming to mobilize and connect diverse actors and institutions (beyond institutional boundaries) to achieve a common goal?
Pertinent literature	Shane and Venkataraman (2000)	Battilana et al. (2009); Pacheco et al. (2010)	Beer et al. (2019); Sotarauta and Beer (2017)
Example activities from the data	Searching for opportunities to increase the number of tourists during the low season	Holding press conferences and writing newspaper articles	Intensification and formalization of cooperation (e.g., through contracts)

to the respective phase. This resulted in one collection of activities for each phase. In this way, we could compare the activities among the phases. Nevertheless, when we identified the phases, we were aware that in practice the phases are highly iterative, overlapping and integrated. For instance, recruiting additional actors started to take place in the very beginning of setting up a social innovation and could last throughout the second and third phase of the development process.

4. RESULTS

In this section we present the results from our analysis of activities performed across the 11 social innovations. We focus on the type of change agency performed throughout the three phases of the social innovation process and we examine the actors who perform these change agencies. Our results indicate that the presence of each change agency alters throughout the social innovation process and that actors themselves alter their performed change agency. Second, we show that different types of actors (such as private individuals, companies, private–public organizations, policy actors and associations) performed the three types of change agency. After presenting these results in general, we illustrate them with cases from our sample of social innovations. These two cases exemplify rather well how various social innovation actors perform activities related to change agency.

4.1. Altering types of change agency in a social innovation process

Our data analysis across the 11 cases shows that the activities related to each change agency as well as to the presence of each change agency in the process altered throughout the social innovation phases (Table 2). Generally, we observe that in phase 1 innovative entrepreneurship was characterized by risk-taking activities. In the same phase, place-based leadership was characterized by non-binding, informal requests for collaboration. Also in phase 1, institutional

Table 2. Characteristics of change agency in social innovation processes.

	Phase 1	Phase 2	Phase 3
Innovative entrepreneurship	<ul style="list-style-type: none"> • Searching for opportunities • Risk-taking activities 	<ul style="list-style-type: none"> • Activities that the actors never had done before 	<ul style="list-style-type: none"> • Activities that the actors never had done before • Risk-taking activities
Institutional entrepreneurship	<ul style="list-style-type: none"> • Picking up local opinions and attitudes towards the social innovation • Presenting idea and vision of the social innovation 	<ul style="list-style-type: none"> • Picking up local opinions and attitudes towards the social innovation • Propagating idea and intention of the social innovation 	<ul style="list-style-type: none"> • Propagating idea and intention of the social innovation
Place-based leadership	<ul style="list-style-type: none"> • Looking for supporting actors with knowledge, resources, power and networks (non-binding) 	<ul style="list-style-type: none"> • Bringing together actors with knowledge, know-how, physical space, financial resources (binding) 	<ul style="list-style-type: none"> • Bringing together actors and on a non-binding and/or a binding level

entrepreneurship was only rarely present and, if so, it was characterized by searching for potentially collaborative actors through presenting the idea and vision of the social innovation. In phase 2, innovative entrepreneurship was characterized by activities that actors had never done before. Then, place-based leadership involved binding, formal requests, and negotiations for collaboration. In phase 2, institutional entrepreneurship was characterized by propagating what the social innovation was doing and searching for supportive actors. In phase 3, innovative entrepreneurship and place-based leadership were present as a combination of the characteristics in the first two phases. Institutional entrepreneurship in phase 3 was characterized by propagating the idea and intention of the social innovation. Our results suggest that innovative entrepreneurship and place-based leadership were the pivotal type of change agency during the whole social innovation process while institutional entrepreneurship seemed only to be pivotal in phase 2.

4.2. Actors performing the change agency

The three types of change agency were performed by different types of actors across the social innovation process. We identified private individuals (e.g., second home owners, local residents), private–public organizations (e.g., tourism organizations, hospital provider company), companies (e.g., handicraft businesses, transport services, hotels, construction companies), policy actors (e.g., city council, municipality, public administration offices), and associations (e.g., trade associations, foundations). Interestingly, actors could perform different types of change agency in the same phase. For instance, a cantonal exchange officer performed innovative entrepreneurship when searching for opportunities to increase the number of skiers and place-based leadership in looking for supporting actors for his idea of a bilingual snow camp. Moreover, we found that actors could alter the performed change agency during the social innovation process. For example, this can be illustrated for private individuals. In phase 1, they stepped into action by searching for opportunities and taking financial risks. For instance, a second homeowner searched for opportunities to reactivate empty shop windows and a local resident bought first components for the social innovation (innovative entrepreneurship). Furthermore, private individuals were looking for additional actors joining the social innovation. For instance, a second home owner asked local residents for membership in the social innovation (place-based leadership). In phase 2, private individuals mainly propagated what the social innovation was doing. For instance, a local resident presented the social innovation in front of the media (institutional entrepreneurship). In a third phase, private individuals again undertook conceptual activities and searched for additional actors. For instance, local residents searched for a new place for interim use (innovative entrepreneurship and place-based leadership). Another interesting finding related to the actors concerns public–private actors. Although they were present in phases 1 and 2, in phase 3, they enabled the social innovation to spread out to other regions in providing new opportunities. Specifically, they provided a network, know-how, and resources. In this phase, they played a crucial role in performing place-based leadership.

So far we generally reported on the findings and highlighted the ways in which social innovation actors engage with change agency. In the next section, we illustrate in more detail how change agency alter and we do this by focussing on two cases that were selected from our sample of 11 analysed social innovations. We chose these cases because they include all five actor types and therefore illustrate well how various actor types perform activities related to change agency. One of the detailed cases is from a tourism-related social innovation, the other from a health-care-related social innovation.

4.3. Change agency exemplified by the case of a bilingual snow camp

The first case that we describe in detail is the example of a bilingual snow camp for school classes visiting the mountains from the French- and German-speaking parts of Switzerland. The social

innovation originated in a region that is highly dependent on ski tourism and is located on the language border in Switzerland. The initial idea came from two cantonal exchange officers (private individuals). The two officers were responsible for language exchange between school classes from the German- and the French-speaking parts of Switzerland. They identified a lack of opportunities for language exchange among school classes from different language regions. One of the officers was living in the touristic region where the social innovation started. He noticed the low skiing tourist numbers during the low season in winter and recognized an opportunity to address two issues: the lack of language exchange and the increasingly low numbers of winter tourists. His personal background may influence his performed change agency in a certain way. To improve both shortcomings, the two cantonal exchange officers had the idea of the snow camp, in which the children learned both a foreign language and to ski. What started as a cooperation between the two officers was later developed further through a cooperation with the local tourism organization that joined the cooperation. The bilingual snow camp can be considered a social innovation because it involves a new cooperation between actors (exchange officers and local tourism organization) and because it addresses the challenges of cultural and social inclusion (via language exchange). The snow camp influenced the practices of the tourism organization and affiliated actors such as ski teachers, sport shops but also public actors such as representatives of the local municipality. It thus has the potential to change the ways local enterprises develop their services and local public actors work towards cultural and social inclusion.

The bilingual snow camp evolved as a social innovation along the three phases and each phase was characterized by specific types of change agency. In phase 1 the two cantonal exchange officers performed place-based leadership. In doing so, they discussed their idea and the plan to implement the idea in several meetings with the local tourism organization. At the same time, the local tourism organization (public-private organization) performed innovative entrepreneurship. Innovative entrepreneurship was performed by the tourism organization and the officer to actively search for opportunities to increase the number of tourists during low season. The idea of a bilingual snow camp perfectly met the tourist organization's interests of attracting as many tourists as possible and increasing the number of skiers. The local municipality (policy actor) performed innovative entrepreneurship by taking on the financial risk as it provided a deficit guarantee for organizing and conducting the snow camp and thereby paved the way for implementing the social innovation. Institutional entrepreneurship was not performed in phase 1 and was characterized by picking up local opinions and attitudes towards the social innovation and influencing them. However, it seemed that at the very beginning of the social innovation, this was not important because the social innovations' idea did not face strong headwind and thus nobody needed to be convinced of the social innovation or a region's vision.

In phase 2, innovative entrepreneurship was related to doing activities that the actors never had done before. Specifically, the tourism organization organized a snow camp for school classes for the very first time. Place-based leadership was related to bringing together actors with knowledge, know-how and physical space. Namely the tourism organization mobilized a local ski school to teach ski lessons. Additionally, it mobilized a local sport shop to rent skiing equipment and a local accommodation to provide for the overnight stays. In doing so, the tourism organization's performed agency changed from innovative entrepreneurship (in phase 1) to place-based leadership (in phase 2). In the bilingual snow camp, institutional entrepreneurship was not performed during implementation.

At the beginning of phase 3, the activities served to operate the social innovation. These operating activities could not be clearly assigned to one of the three types of change agency because they did not match any of our core questions. The tourism organization had the lead and connected all other involved actors. The snow school organized and taught the ski lessons.

The local accommodations provided a place to sleep and eat. The local sport shop let the equipment for skiing. A foundation took over the matching of the school classes from different language regions. However, besides the operating activities, there were activities related to place-based leadership. The local tourism organization and a foundation with the goal to promote ski sport strengthened their collaboration up to a binding level so that the foundation and the tourism organization nowadays co-organize the snow camp. In the beginning of the social innovation process, the foundation's activities were limited to supporting activities, such as organizing the journey of the school classes. At the time writing this paper, the foundation organizes snow-sport camps for school classes all over Switzerland and made it possible to spread the social innovation all over Switzerland.

4.4. Change agency exemplified by the case of a regional healthcare network

This example is an integrated healthcare network, which is supposed to integrate several healthcare providers centred on a newly conceptualized regional hospital to improve cooperation and efficiency in healthcare provision. The network can be considered as a social innovation because it was initiated by a new cooperation of actors who had never cooperated before for the purposes of healthcare provision and because it aimed at addressing the challenge of maintaining the regional healthcare provision. The ideas and practices of the network reached out to many actors that were initially not part of the social innovation (for instance cantonal authorities) and could improve the well-being of the regional population.

The regional hospital had been running at a deficit for quite some years. As the hospital was increasingly threatened with closure, local mayors and municipality authorities held several conversations with the cantonal healthcare minister to find solutions. This was the starting point for developing the idea of an integrated healthcare network and the conditions under which the actors began to develop the social innovation. In phase 1, the local mayors (public policy actors), representatives of the regional hospital provider company (public-private organizations) and an external healthcare/hospital consultant (company) performed innovative entrepreneurship in searching alternatives to the current healthcare provision and new healthcare provision opportunities. They gathered some ideas and discussed their potential implementation. As they could not find the best suitable solution, the actors decided to organize several workshops together with the region's main healthcare players, local citizens, municipality authorities, associations and others. They performed place-based leadership to acquire those actors for the workshops.

In phase 2, the first workshops were organized and the participants took over several tasks. The external healthcare/hospital consultant and a representative of the regional hospital provider company performed place-based leadership through taking the lead in organizing and bringing the actors together. During, in between and after the first workshops, representatives of the regional trade association (association), the regional hospital provider and a regional elderly home provider performed innovative entrepreneurship together with local citizens (private individuals) by creating the financing plan for the healthcare network. These were activities they had never done before and involved searching for new economic opportunities. In this vein, they also performed place-based leadership in requesting and checking the regional players' willingness to take over the costs for possible new ways of healthcare provision. Local mayors and municipality authorities performed institutional entrepreneurship by picking up public opinions regarding healthcare needs, for instance during municipal assemblies. Furthermore, representatives of the cantonal health department, the chief executive officer (CEO) of a regional elderly home provider, the region's mayors and citizens performed place-based leadership in looking for supportive actors, and how they could work together in new forms of regional healthcare provision. What stands out in phase 2 is that several actors performed more than one change agency. For instance, the representative of the regional hospital provider first performed

place-based leadership, and afterwards innovative entrepreneurship and institutional entrepreneurship.

In phase 3, a second round of workshops was organized and held to elaborate on the concrete plan of the regional healthcare network. The same actors as in phase 2 worked together, and the tasks were quite similar, though now with the background of a concrete idea of a regional healthcare network. Accordingly, the actors performed the same types of change agency as in phase 2. What was new in phase 3 was that, after the workshops, the region's mayors, the cantonal healthcare ministry and the regional hospital provider performed innovative entrepreneurship and place-based leadership in founding a public limited company with the purpose to implement the healthcare network. For the actors, the founding was an activity they never had done before (innovative entrepreneurship). They also brought together actors on a binding level (place-based leadership) as they signed the contract for implementing the healthcare network.

4.5. Implications from the two examples

The two presented case studies illustrate our three major findings: First, the activities related to each change agency, as well as the presence of each change agency, altered throughout the social innovation phases (Table 2). Second, we found that actors could perform different types of change agency during the social innovation process. In the first example, we saw that the tourism organization and public-private organizations performed innovative entrepreneurship at the very beginning and changed to place-based leadership in later phases. In the healthcare network, local mayors, for instance, performed innovative entrepreneurship in the beginning, institutional entrepreneurship during implementation and place-based leadership during the phase 3. Third, in phase 3, new actors joined the social innovation because of place-based leadership. These three major findings expand current knowledge on agency in social innovation processes, which addresses agency (Suitner et al., 2022) but so far has not investigated the detailed activities of social innovation actors. The findings do so by (1) showing types of agency that are important in social innovation processes, (2) by showing that in different phases of a social innovation process specific types of agency are more present than others and (3) by showing that the types are performed by diverse actors. Specifically, the findings demonstrate that change agency, that is, agency, which is important for changing regional development paths, is present in social innovation processes.

5. DISCUSSION AND CONCLUSIONS

The overall aim of this article was to analyse the role of change agency in social innovation processes and we illustrated how the concept of the trinity of change agency (Grillitsch & Sotarauta, 2020) can be applied to the study of social innovations in peripheral regions. We show that the types of change agency alter throughout the social innovation processes. In the beginning of the social innovation process (phase 1), activities related to innovative entrepreneurship and place-based leadership are the most crucial. When it comes to implementing the social innovation (phase 2), all the types of change agency were important. When it comes to operating and perhaps scaling (phase 3), innovative entrepreneurship and place-based leadership were again, the most crucial ones. Overall, we find that change agency in social innovations contributes to establishing and developing social innovations. This is an important finding, particularly when we think about the peripheral context of our study. The analysed social innovations have a transformative potential, and in some cases, they could even change existing institutional and organizational structures. Change agency played an important role in initiating and implementing social innovations. This highlights an often-overlooked aspect. Namely that peripheral regions do have actors with a diverse set of skills and capabilities who are not passive recipients

or even victims of structural changes but rather persons who act upon such changes. In the tradition of the capability approach to social innovation (Howaldt & Schwarz, 2017), we conceptualize social innovation actors as proactive agents of change who have specific abilities and who turn these into risk-taking, entrepreneurial action through innovative entrepreneurship, who aim to change existing structures and organizations through institutional entrepreneurship and who mobilize and connect with other actors through place-based leadership.

In the theoretical background section, we hypothesized that innovative entrepreneurship is the pivotal agency throughout the social innovation process – especially in the beginning. Our results show that innovative entrepreneurship is indeed the pivotal agency in the beginning of the social innovation process and that it remains a crucial agency throughout the process. This is not surprising because social innovations are a form of innovation and for innovations in general, the element of innovative entrepreneurship is crucial (Feldman et al., 2005). Our results add to this notion by highlighting the actual activities related to innovative entrepreneurship and how they changed over the social innovation process. In the very beginning, innovative entrepreneurship is performed as risk-taking activity. When it comes to implementation, innovative entrepreneurship is performed through activities the actors never had done before. When it comes to the operationalization of a social innovation, innovative entrepreneurship is performed through both activities. However, innovative entrepreneurship and its related risk-taking aspects – even when applied to social innovations – depends on the presence of favourable institutional conditions. Looking at place-based leadership, we hypothesized that it may come to the fore when the social innovation has already established its idea and is beginning to reach out for supporters. Contrary to these expectations, this study found that place-based leadership is pivotal even before implementing the social innovation. In the very beginning, actors like to share their idea of the social innovation and therefore are looking for supportive actors with knowledge, know-how, financial resources and physical space. Searching for supportive actors usually happens on an informal basis. We have to note that cooperation is an important element from the very beginning in social innovation processes. This is not surprising as cooperation is a common constitutive element in social innovations, which is unrelated to social innovation phases (Moulaert et al., 2013; Nicholls et al., 2016). In the implementation of the social innovation, place-based leadership is performed on a formal level in the sense that the initial actors start to collaborate with the supporting actors. Furthermore, place-based leadership encourages the joining of new actors. These additional actors helped the social innovations to continue to develop. In terms of institutional entrepreneurship, we hypothesized that it is particularly important when the social innovation is being established. This is in line with our findings, as institutional entrepreneurship is pivotal in phase 2. Furthermore, institutional entrepreneurship was performed with the intention to convince external actors of the idea of the social innovation and it seems that institutional entrepreneurship was important to build a positive attitude towards the social innovation among the external actors/decision-makers in the region. This is different from activities related to place-based leadership, which were directed towards finding additional actors working within the social innovation.

Our findings show that the various types of change agency are highly present in social innovations. Therefore, there is a great chance that social innovations can contribute to changing regional development paths and perhaps even to regional transformation. Thus, our research also contributes to the emerging realization that challenge-oriented regional innovation policies should consider the role of social innovations (Tödting et al., 2021). Our results indeed show that change agency in social innovations contributes to establish and develop social innovations that in turn may contribute to regional transformation processes. While Suitner et al. (2022) highlight that agency in social innovation is indeed important for regional transformation, we extend knowledge about agency for regional transformation by illustrating what kind of change agency in social innovation processes is important for such transformation.

The concept of the trinity of change agency proved to be very useful because of the lack of studies on the role of agency in social innovations. While some studies examined institutional entrepreneurship in social innovations (Jensen & Fersch, 2019), there are no studies that examine the trinity and its temporality in social innovation processes. Our analysis expands current applications of the trinity of change concept by demonstrating how the three types of agency can be broken down to single activities and can be applied to analyse (social) innovation processes in detail. However, such breaking down is also a limitation, since it is always a matter of the researchers' interpretation how the rather general descriptions of the three types of change agency in the literature are broken down to detailed activities.

It is very interesting that social innovation actors perform several types of change agency throughout the social innovation process. This is not surprising because actors in social innovations take various roles, and therefore perform various activities (Butzin & Terstriep, 2018). Furthermore, the thinness of actors in periphery leads to consequences that actors take on various roles and types of agency (Isaksen, 2016).

Our conclusion is particularly useful for the question how change agency can be fostered in social innovation processes. We found that different types of change agency are important, in particular innovative entrepreneurship and place-based leadership. Perhaps policy ought to be sensitive to what types of activities social innovation actors perform in at what point in time along the social innovation process. Ludvig et al. (2018) argue that social innovations differ from traditional innovations insofar as there is no 'for profit' motive and thus social innovations would need support regarding their maintenance (rather than policy support to create social innovations). This implies that support could differ depending on the nature of the change agency along the social innovation process. In addition, our results may indicate a similar challenge that Huggins and Thompson (2022) identified when they argue that 'perhaps the most fundamental but often overlooked, challenge relating to new regional path development is to harness the personal agency and intensions of, for example, entrepreneurially minded individuals in lagging regions' (p. 11). By analysing change agency in social innovation process, we contribute to a better understanding about what types of agentic behaviours at what stage in the process (types, mix and temporality of change agency) is needed to effectuate change.

Our findings should not give the impression that the actors performed change agency activities independent of any enabling or constraining factors. We need to consider that agency is always shaped by structural conditions, such as policies, regulations, laws, social norms and values (Cajaiba-Santana, 2014; Grillitsch & Sotarauta, 2020). Although it can be suggested that there were structural conditions that enable change agency in social innovations, our study does not focus on the structural conditions. This limited our results to a certain extent. At the same time, it expands discussions on peripheral regions that primarily remain on structural preconditions and structural weaknesses of peripheral regions and are thus biased towards discussing structures at the expense of actions (Nilsen et al., 2022). In their conceptualization of change agency, Grillitsch and Sotarauta (2020) account for the structural conditions by introducing so-called opportunity spaces, which refer to 'the time or set of circumstances that make a change possible' (p. 713). Future research on the activities related to change agency could investigate such opportunity spaces to complement our results. In addition, it would be interesting to see whether the identified types of change agency can expand into more regional forms of transformative action (Huggins & Thompson, 2022). Future research could assess, for example, whether there is low or high tolerance for dissonant behaviour or whether there is a strong presence of individuals and elites that may hinder change.

The purpose of this paper was to contribute to the debate on change agency and relate the concept of trinity of change agency (Grillitsch & Sotarauta, 2020) to social innovations and therefore to the emerging debate on social innovation for regional transformation. We specifically add insights on the specific activities that actors in social innovations perform and conclude

that change agency is a significant feature in social innovations and should be considered as a transformative element of social innovations.

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ORCID

Heike Mayer  <http://orcid.org/0000-0001-9419-0770>

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